

THE AMERICAN RIFLEMAN



Dear Family:
Look inside-
I've checked
some things
I'd really like
for Christmas!
Dad

NATION'S FOREMOST PISTOL POINTERS WIN WITH PETERS

LEO ALLSTOT WINS 10 OUT OF 14 FIRSTS AND TIES WORLD'S RECORD

LEO ALLSTOT of Mason City, Iowa, scored one of the most decisive wins of the year when he took ten firsts, two seconds, and one third in the North Iowa Pistol Tournament, won the Grand Aggregate with 1708, and tied the World's Record in the 22 Cal. T.F. 20 Shots 25 yds. with 200 x 200. His individual scores were:

C.F. 20 Shots S.F. 50 yds. — 181 x 200.
22 Cal. T.F. 20 Shots 25 yds. — 200 x 200.
C.F. 20 Shots 25 yds. T.F. — 194 x 200.
C.F. 20 Shots R.F. 25 yds. — 188 x 200.
22 Cal. National Match Course—286 x 300.

C.F. National Match Course — 291 x 300.
22 Cal. 20 Shots S.F. 25 yds. — 200 x 200.
C.F. 10 Shots 25 yds. S.F. — 99 x 100.
22 Cal. 20 Shots T.F. 25 yds. — 199 x 200.
Aggregate—1708 (including other scores of 177 x 200 and 191 x 200)

E. T. O'DELL, shooting Peters, won the 22 Cal. 20 Shots S.F. 50 yd. Match with 185 x 200.
D. A. THIMMESCH, shooting Peters, won the 22 Cal. R.F. 20 Shots 25 yd. Match with 193 x 200.



F. M. O'CONNOR, Kansas City, Mo., won four events in the Corn States Rifle and Pistol Tournament at Omaha, and took the Aggregate with 1504. He shot Peters throughout the tournament.



JOE FRANANO, Kansas City, Mo., shooting Peters, was third in the Corn States Aggregate, winning the C.F. Camp Perry Course with 281, and the C.F. National Match Course with 269.



LEWIS SANDERSON and **AL HEMMING**, of the Detroit Police Dept., shooting in the Second Annual Outdoor Pistol Tournament of the Summit County Pistol League at Akron, turned in winning scores. In the Zeppelin Arms Co. Trophy C. F., S. F. Match, Sanderson won with 181. In the R. M. Williams Trophy, C. F. National Match Course, Al Hemming won with 282 (S-88, T-99, R-95). Both shot Peters Police Match ammunition.



PETERS DU PONT

PETERS CARTRIDGE DIVISION, Zeppelin Arms Co., Inc., Bridgeport, Conn.
 "FOR A MORE EFFICIENT GUN SUPPLY"

Peters Police Match is a trademark of
 Peters Cartridge Division



For Yourself— THIS LIFETIME GIFT

OUR SUGGESTION for the shooter to give himself, is a gift that keeps on giving—Life Membership in the National Rifle Association.

As a Life Member of the N. R. A. you will always enjoy the privilege of competition and you may at any time purchase such Ordnance material as is sold to members by the government. You will acquire the right to vote and as a voting member will be eligible for election to the Board of Directors and to the Executive Committee. You will never again be bothered by periodic notices that your dues are due and barring unforeseen developments your monthly visitor—The American Rifleman—will come to you indefinitely free of charge.

Yet you will not be spending \$25.00. You will be helping to perpetuate the good work your Association does to make life more interesting for the shooter, of saving his guns, of teaching his children how to handle a rifle safely. You may deduct the full amount of your Life Membership dues when filing federal income tax returns.

The coupon below serves a three-fold purpose. It may be used as a gift to a friend; you may use it in remembering yourself; or some member of your family may use the coupon to solve the problem of what to give you this Christmas.



★ EASY PAY PLAN ★

OUR popular easy pay plan brings Life Membership within the grasp of every shooter. A down payment of as little as \$5.00 will buy a Conditional Life Membership Certificate. The balance may be paid in any amount over a twelve month period. You can't lose under this plan because if you should fail to pay the \$25.00 dues within one year we give you dollar-for-dollar value in the shape of Annual Membership—four months for each dollar you paid on the contract.



IF YOU ARE NOW A LIFE MEMBER—

THESE membership insignia are popular, inexpensive gifts for Life Members. The 10-K yellow gold pin with safety catch is shown actual size and sells at the pre-gold standard price of \$2.50 postpaid. A felt

brassard (red lettering, gold eagle, white background) is a new distinctive design that merits the distinction of Life Membership in the fraternity of American shooters. It costs but 50 cents.

National Rifle Association
816 Barr Building
Washington, D. C.

Yes—I am "sold on the N. R. A. for life". Please send proper membership credentials as an acknowledgment of the attached remittance of

- ☐ \$25.00 for a paid up Life Membership
- ☐ \$5.00 for a Conditional Life Membership
- ☐ I include \$3.00 additional for a 10k gold (yellow) Life Membership pin and felt brassard.

NAME _____
STREET _____
CITY _____
STATE _____

The Gift That Lasts for Life



RECOMMENDED BY: ☐ or A GIFT FROM: ☐

NAME _____
STREET _____
CITY _____
STATE _____

ARMAMENT RACE IN FULL SWING



INTERCLUB MATCHES

Check with your club secretary to be certain that your team will have an opportunity to shoot in the special team matches for N. R. A. affiliated clubs. Entries must be in Washington on or before January First. Each club may enter one or more teams in each of the following Divisions:

RIFLE

A—50 Foot Metallic Sights
B—50 Foot Any Sights
C—75 Foot Metallic Sights
D—75 Foot Any Sights

PISTOL

E—50 Foot Three Stages
F—20 Yards Three Stages
G—50 Foot Slow Fire
H—20 Yards Slow Fire

ENTRY FEES

One Team (Any Division)	\$4.00
Two Teams from one club	7.50
Three Teams	10.00
Each Additional Team	2.50

BUT we don't mean battleships or bombing planes. All over the country marksmen are oiling up the old shooting irons for another try at the medals and trophies annually awarded in the National Rifle Association's Gallery Postal Matches.

And there is still time to get off to a flying start by entering the lead-off match of this year's season. This event proved to be one of the most popular of the 1937-38 Gallery season.



MATCH NO. 1

ANY SIGHTS 50 FOOT RIFLE MATCH

50 shots—prone position

Entries arriving in this office on or before

December 15th will be accepted for the

matches running in that month.



OTHER MATCHES FIRED IN DECEMBER, 1938

MATCH NO. 2 METALLIC SIGHTS 75 FOOT RIFLE MATCH

50 shots—prone

MATCH NO. 3 SLOW FIRE 50 FOOT PISTOL MATCH

40 shots

Write for additional information regarding matches running during January, February, March, and April. Folders are also available giving the conditions of special events conducted for Junior members, college students, and members of military organizations.

POSTAL MATCH DIVISION
National Rifle Association
Washington, D. C.

Gentlemen:

Please enter me in the 1938-1939 N. R. A. Gallery Home Range Matches which I have listed below. I want to enter Matches Numbered

I enclose remittance of \$..... to cover my entrance fees at \$1.00 per match.

☐ Life Member

☐ Annual Member

☐ Junior Member

☐ Club Member

☐ I have made previous entry in the 1938-1939 N. R. A. Home Range Gallery Matches.

NAME.....

ADDRESS.....

CITY.....

STATE.....

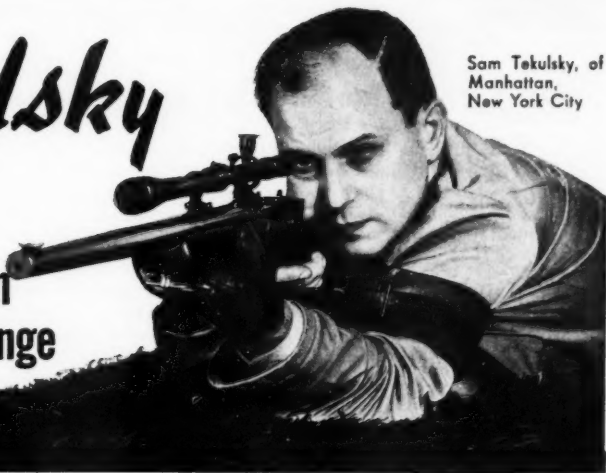
Date.....

1,000 YD. WORLD RECORD

By *Sam Tekulsky*

Sam Tekulsky, of
Manhattan,
New York City

99 Consecutive Bulls Win
Metropolitan Long-Range
Championship . . .



Walter Shanessy, of Brooklyn,
New York City

Walter Shanessy Paces Winner with Sensational Record-Breaking 90 Consecutive Bulls

SAM TEKULSKY and Walter H. Shanessy, both nationally prominent as outstanding small-bore rifle marksmen of Greater New York City, on October 16 wrested the big-bore long run world's rifle record for 1,000 yards from its moorings, each replacing it with a new and much higher score. These record-shattering demonstrations of better than world's best shooting came in the Metropolitan Rifle League's 1938 1,000-Yard Championship, on the state rifle range at Peekskill. First Shanessy eclipsed the former world's record of 79 consecutive bull's-eyes with the magnificent total of 90. Then Tekulsky, finishing an hour later, outstripped his pacemaker with a final new record of 99 consecutive bull's-eyes, winning the championship. The previous record, set in this same Metropolitan match in 1935, was held by Gus Schweitzer.

Tekulsky and Shanessy each shot a Winchester Model 70 Bull Gun with telescope sight, and Winchester .300 H & H Magnum Match Cartridges.

By the time that it became apparent that Tekulsky might overhaul Shanessy, it was evident that he would be penalized by failing light. Finally, as he kept methodically on "sticking them in," he was permitted to shoot alternate shots on two targets, to save time. This he soon justified by exceeding the newly made record and continuing until his 100th shot was fired with his last cartridge, scoring a 4. Counting sighting shots, he had made 106 consecutive bull's-eyes.

Two More World Records Made with

WINCHESTER

TRADE MARK

World Standard Guns and Ammunition



Winchester .300
H & H Magnum
180-grain Match
Cartridge, non-
mercuric and
non-corrosive



WINCHESTER REPEATING ARMS CO., NEW HAVEN, CONN., U. S. A.

GIFT MANUALS and EXCLUSIVE other GIFT ITEMS



The ballistics and comparative data of new Chuck Cartridges such as the .220 Swift, .22/3000—.22 Niedner Magnum and every other worthwhile load for connecting with the woodchuck at long ranges. This little manual, "The Woodchuck Hunter," by Paul C. Estes, is a popular, inexpensive gift at only \$1.50.

All about brush and timber rifles, long-range stalking rifles, doubles, and the best all around arms for big game hunting. Elmer Keith knows his big game rifles and cartridges, and he also has the knack of writing about them. He gives you all the dope in this easy-to-read, worth reading manual which costs but \$1.50.

The "what," "why" and "how" of handloading ammunition. Here is a new, complete manual that explodes the black magic of handloading by furnishing detailed instructions to follow in order to load safe and accurate ammunition. Major Naramore's manual, we believe, will remain the standard encyclopedia on the subject for many years to come. A best seller at \$3.50.

Scopes—Those best adapted to both hunting and target rifles, including the most modern rifle scope combination for big game hunting. The one author best equipped to write on this subject—Colonel Townsend Whelen—leaves nothing uncovered in his manual "Telescopic Rifle Sights," which is popularly priced at \$1.50.

Handgun ammunition. All the information needed by the handloader of revolver ammunition is contained in Elmer Keith's manual "Sixgun Cartridges and Loads." It also contains 150 pages crammed full of data about present-day revolver cartridges, their merits and demerits—and the killing effect of each load. A lot of dope for a dollar and a half.

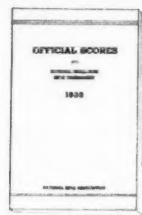
Handgun shooting. How to boost your pistol scores above 83 and keep them there. This manual, "Sixguns and Bullseyes," by Bill Reichenbach, is really a book for the mediocre shot but it contains plenty of dope for the beginner and will help anyone become a first class pistol shot. One of the better buys for \$1.50.

The removal of rust by chemical means. This valuable information plus 230 suggested formulae for the blueing and browning of metals, will be found in Mr. Angier's worthwhile manual. A thorough and practical treatise on the chemical and heat coloring of all steels, it costs only \$2.50.

Gunsmithing. You can now enjoy the fascination of dolling up your pet gun without so much danger of spoiling it. This brand new manual "Elementary Gunsmithing," written for the beginner, furnishes the step-by-step instructions you will need, and brings amateur gunsmithing as close to you as your work bench. It's the tops in the two-dollar field.

The handgun for self-defense. "Automatic Pistol Marksmanship," by Bill Reichenbach, teaches practical defensive methods, entirely different from the methods heretofore employed, and also contains many helpful "pointers" for the target shooter. It's another of our popular \$1.50 editions.

for SMALL BORE SHOOTERS



This new book of official scores contains the complete results of all small bore rifle matches fired at Camp Perry this year. The score of every shooter in every match fired is shown. We have a few surplus copies on hand after furnishing the book to all National Match small bore competitors and—while they last—these leftover copies are available at a quarter, postpaid.

A book of official pistol scores, covering the results of all pistol and revolver events fired at Camp Perry, is in preparation and will be available after January 1. It will be sent to National Match pistol shooters free—others may order a copy now for 25¢, postpaid.

for ALL TARGET SHOOTERS



A useful inexpensive gift for target shooters is this new "3 in 1" score plug, which insures speedy accurate scoring of rifle and pistol targets. Equipped with .22, .38 and .45 caliber flanges on a single stem, it is the ideal all-purpose gauge, and now costs but 75¢ postpaid.

for ALL N. R. A. MEMBERS



More and more N. R. A. members are wearing these good looking felt brassards and membership insignia on their shooting coats and jackets. These items are inexpensive but welcome gifts. The illustration below shows the annual member brassard and sterling miniature pin which is illustrated actual size. Brassards are 50¢ each—Miniature pins are 35¢ each.

NATIONAL RIFLE ASSOCIATION

Barr Bldg., Washington, D. C.

USE THE ORDER BLANK ON THE GREEN INSERT

THE AMERICAN RIFLEMAN

VOLUME 86

DECEMBER 1938

NUMBER 12

COMING

SLATED for publication in an early issue is one of the best crow-bunting stories we have yet seen. It is by Bert Popowski, who has an article in this present issue. Mr. Popowski is a rifleman, hunter, student of ballistics, and outdoor writer, and lives in Aberdeen, South Dakota.

One of our most enthusiastic, as well as scientifically minded, small-bore shooters is Russell Wiles, a prominent lawyer of Chicago. Mr. Wiles has written for us an article on the subject of windage, which should be read—and studied—by every lover of the grooved barrel. Be on the lookout for this article in an early issue—it may clear up some matters that have perplexed you.

The effect of age upon ammunition is an interesting study, and is a subject which concerns all users of firearms. Not much has been written about the effects of time and climate upon the cartridges we use, and we are glad to have an article on this subject by Van Allen Lyman, a Government engineer stationed in the Panama Canal Zone. Mr. Lyman—who is an enthusiastic rifleman and hunter—has lived in the Canal Zone for many years, and has had unusual opportunities for studying ammunition. His article will appear in an early issue.

CONTENTS

COVER PICTURE

Made in the home of E. P. Goucher, well-known hunter, outdoorsman, and N. R. A. member, of Arlington, Virginia.
Photo by Blakeslee-Lane, Washington, D. C.

TRY JACKRABBIT SHOOTING BY ALLYN H. TEDMON	5
BULLETS IN FLIGHT BY BERT POPOWSKI	8
OLD MUZZLE-LOADERS BY N. H. ROBERTS	12
FILLING THE GAP BY F. C. NESS	17
HOME GUNSMITHING BY "PROFESSIONAL"	18
THE PISGAH HUNT	20
IMPROVING YOUR SCORE BY FRANK WYMAN	21
GUNSMITHS BY E. A. DAUBENSPECK	23
THIS MATTER OF CANT BY WALTER F. ROPER	24
MR. AVERAGE SHOOTER BY H. V. STENT	27
THE AMERICAN RIFLEMAN INDEX FOR 1938	31
OVER THE NEWS DESK	37
DOPE BAG	44
ARMS CHEST	49

PUBLISHED BY THE NATIONAL RIFLE ASSOCIATION OF AMERICA

OFFICERS OF THE ASSOCIATION: GUSTAVUS D. POPE, President; LT.-COL. L. W. T. WALLER, JR., First Vice-President; LT.-COL. N. C. NASH, JR., Second Vice-President; MAJ.-GEN. M. A. RECKORD, Executive Vice-President; C. B. LISTER, Sec'y-Treas. and Managing Editor, THE AMERICAN RIFLEMAN. STAFF OF THE ASSOCIATION: L. J. HATHAWAY, Editor, THE AMERICAN RIFLEMAN; F. C. NESS, Associate Editor and Technical Division; W. F. SHADEL, Associate Editor and Public Relations; F. A. MOULTON, Advertising Manager; H. H. GOEBEL, Club Service and Junior Division; L. Q. BRADLEY, Membership and Circulation; F. M. HAKENJOS, Extension; F. L. WYMAN, Competitions

Published monthly by the National Rifle Association of America, Barr Building, Washington, D. C. Domestic rates, including North, South and Central America, \$3.00 a year; \$5.00 for two years; elsewhere, \$3.60 a year; \$6.50 for two years. Entered as second-class matter, April 1, 1908, at the Post Office at Washington, D. C., under Act of March 3, 1879. Copyright, 1938, by the National Rifle Association of America. Thirty days' notice required for change of address. Unless otherwise requested, new subscriptions are entered to begin with the issue following the month in which subscription is received.



Greetings

WE wish to take this opportunity to greet all of our N. R. A. members, wherever they may be, and to wish them all the joy and happiness of the Christmas holiday season. We wish, also, to express to each and every one of you our sincere appreciation of, and gratitude for, the splendid loyalty and cooperation which have played so large a part in making the year 1938 the best in the history of The National Rifle Association. With your continued support we shall look ahead with confidence to still greater achievement.

THE N. R. A. STAFF

THE AMERICAN RIFLEMAN

VOL. 86

DECEMBER 1938

NO. 12

TRY JACKRABBIT SHOOTING

By ALLYN H. TEDMON

TOO MANY OF OUR SPORTSMEN still believe that this is a nation of riflemen, and that skill as both riflemen and deer stalkers is an inherited American trait.

Not many moons ago I witnessed a number of these "natural-born" deer hunters as they strained their trusty thutty-thutties and Springfields in an effort to place just one bullet in a 20-inch bull's-eye at 200 yards, offhand. Yea, verily, even though they came in their clumping boots and fringed jackets, with open sights, peep sights, scope sights, a whole volume of 500-yard stories, and a pack-basket bulging with alibis, many of them connected not, except by accident and chance. All offhand, remember—the position that excels all others in the game field. And sad to relate, the majority blamed the shape of the butt-plate, the cheese in the new moon, or a poor grade of whiskey for their poor shooting. It never dawned on them, apparently, that a little practice now and then, or possibly readjusting the sights, might have a very gratifying effect upon their ability to connect.

Outside of pure lack of training and practice, or dearth of game, one of the main reasons why many deer hunters come home empty handed is because they and their rifles are strangers. In other words, the unfortunate hunter may be over-gunned, the sights may not be set, or this particular rifle simply doesn't fit him, and he doesn't know it; yet he pays his money out for a trip, and so far as making good as a rifleman is concerned, he is disappointed.

Too often a rifle is just a rifle to this kind of fellow. He judges its power by the diameter of the bullet, and can't be convinced that the sights may need adjusting to fit his eyes; all of which is cockeyed, of course, but true nevertheless. What every deer hunter needs, and to be a successful game shot must have, is actual field rifle practice where surroundings will, as nearly as possible, simulate conditions as they exist in the game field. Ordinary target shooting as of the 1938 version will not do. Shooting at running-deer targets set up in natural surroundings is good; barrels, tubs, or the like rolled down rough, steep hills make not bad targets, that are hard to hit. Shooting at rocks or big cans on hillsides at unknown distances is good practice, when done against a watch. All of such shooting to be done offhand, of course, and with the regular deer rifle and full charges. And yet, while much benefit will come of this type of practice shooting, it doesn't compare with similar shooting at living targets; and here the oft-damned jackrabbit comes into the picture.

For years it has been the rule in this household, and also with Lynn Chilcote and Bob Lashbrook, hunting companions, to get in as much running-jackrabbit shooting with our deer rifles *before* the deer season opens, as possible. Thus we attempt to get all we can of actual field practice

—fast snap-shooting out in the wind, sun, or clouds, at game that jumps fast and lingers not. It is our annual tryout to see if the lever hand still follows the instantaneous orders of the eye and brain. Jackrabbits alone can give this test.

Jackrabbits resemble deer far more than the uninitiated may realize. They run, leap, and bound along very much as does a frightened buck. They are small marks and really hard to hit, though a close miss on one of them would in most cases be a hit on a buck. For this, and sundry other reasons, these long-eared, spindle-legged hares give a deer hunter, seasoned veteran or novice, an exceptional opportunity to prove his skill as a rifleman, and to test the fit of his deer rifle. Fact of the matter is, there is no place on earth where a misfit rifle will show up more quickly than when shooting at running jackrabbits.

Jackrabbit shooting is of course prairie shooting for the most part, and the necessity of slipping a bullet between half a dozen tree-trunks is not there. Other advantages, however, are present. For instance, when shooting in timber it is almost impossible to tell where your bullet goes if you miss; but when shooting at jackrabbits, in regular jackrabbit country, every shot is registered by a spout of dust. If your shot is high you know it, and how much. If you fail to lead enough, the spout of dust will be feet or even yards behind the bounding hare. In addition to this spotting service, that important element of surprise is always present, inasmuch as the flushed hare races away in a confusing, whirlwind rush. Here is a wonderful chance to practice getting off a well-aimed first shot—the kind of skill necessary to land on a buck as it bounds across a ridge. As a training school for handling the deer rifle, I know of nothing that excels this jackrabbit game.

Always use your big-game rifle, and don't be a pansy and snap off a mess of squib loads. There is no way in which the average deer hunter can spend a dollar and get so much in return as in burning a few boxes of full-charge factory ammunition on jackrabbits, *before* leaving for the deer hunt. I repeat: in this sort of practice use exactly the same load that you will use on the deer hunt. Following this sort of a system of preparation, you will never be so foolish as to take an untried rifle into the game field. And right here possibly a word or two on the type of rifle to be considered might be helpful.

The rifle that the deer hunter will do his best work with is the rifle that he likes best, and that *fits him best*. In the last few years we have had a decided change in stock styling for our rifles. Some of these stocks are much better than others, but practically all have been cut with a bolt-action rifle in mind. I can't agree with the designers of some of these stocks; in fact I personally can't shoot the darned



As a training school, I know of nothing better

Real jackrabbit country—cactus and jackrabbits

things with any comfort or speed. Just to call names, the fine Winchester bolt-action Model 70 is an impossible outfit for me. On the other hand, my friend Ed. Howard, the noted rifleman of North Park, Colorado, thinks I'm nutty and that that particular rifle is perfection. For me the Winchester Model 71 and Model 64 rifles handle perfectly, though my particular choice is a Savage Model 99, mainly because this rifle is head and shoulders above all others for scope mounting, has a very strong action, and is very fast. In bolt-actions I prefer the Remington Model 30S, it being exceptionally well stocked for the average fellow like me. I could go down the line of rifles, and name those that fit me and those that don't. Those that fit me I can do pretty good work with, but those that don't fit me are out. And this is true of every other rifle shooter, and is something that you fellows who are about to buy deer rifles had better recognize.

It is my suggestion that for deer shooting you get a rifle handling a cartridge of moderate power. Unless you are a trained rifleman and experienced in handling rifles with recoil, do not select one of the much-tooted Magnums; nor do you want a .348 Winchester. The .35 Remington and .300 Savage are both fine cartridges. If recoil bothers you, and you can hold and place your shots, you can't beat the .250 Savage. The much-damned, cussed, and praised .30-30 with the modern loads is one good choice, and will do its stuff if you do yours. The average deer hunter will do much better shooting with a rifle that doesn't buck and bawl all over the corral than with any of the late snooper-snoopers making the magazine covers each month. And, from years of observation in the hunting field in the West, it is quite evident to me that the fellow who does not choose to properly train himself for a bolt-action rifle, will do far better with an autoloader, a slide-action, or a tried-and-true lever-action rifle. Pay your money and take your choice,



but for Heck's sake don't start off with some rifle just because "it looked good in an ad."

As to sights, well, the same remarks apply. Generally speaking, an aperture rear sight is much to be preferred, with a bead front sight. This bead may be white, gold, or red. And right here let me say "O.K." for King's red-bead front sight with the reflector base. While I have used white beads for the most part, yet a red bead has some advantages not possessed by the white. The bead should be at least 1/16-inch in diameter, and for snap-shooting—especially in timber—a 3/32-inch bead is to be preferred. But this should be decided by test, preferably on jackrabbits. The rear aperture should be just as close to the eye as possible, and on rifles of moderate recoil such as the .250 Savage, .30-30, etc., a tang sight is miles ahead of any receiver sight ever made. Believe it or not, many and many an old-time .45-70 Winchester was fitted with a Lyman tang sight. A tang sight will not bat you in the face if you keep your face where it belongs, which isn't poked up the grip of the rifle.

Jackrabbits break cover and tear away with a rush, and cannot be picked up in the field of a short-eye-relief telescope at all, especially those powers of over 4 or 5. With such scopes as the 348 Lyman, Malcolm (with regular relief), and the Winchester 5A, the running animal can be picked up in the field fairly well if—and only if—your rifle fits, out around 40 or 50 yards. Last fall I hit two jacks, running, one at 40 yards and the other at full 80 long paces, using my Winchester 5A in Malcolm "C" mounts. Not long ago I was shooting at jacks and using my Weaver 29S scope in the Redfield Junior mount, and found it at least four times as easy to pick the animals up in the field of this scope as in that of the 5A. Of course any of the higher-priced, large-field hunting scopes would be ideal, provided that they were mounted right down on the rifle as Weaver and Redfield mount them. But if such a scope were perched way up above the barrel, as so many are mounted, it would not help much on running jackrabbits, regardless of the quality of the scope itself.

In shooting jackrabbits, be a good sportsman and take every shot, regardless of how it comes along. The easiest shots are those running across your front. With cartridges having velocities of from 2500 to 3000 feet, or over, don't over lead. Generally speaking, the width of a 1/16-inch bead is lead enough for a fast bullet at 50 or 60 yards. Straight-away shots are not too hard if you hold on the rabbit's ears, or head. Quartering shots away to right or left are quite difficult, and when the jack jumps up and tears off from behind, and you whirl to fire, don't cuss when you miss. This is a very difficult shot.

Watch your animal carefully after you fire, as a broken leg means nothing to these jacks. Last winter I hit one, but as it didn't roll I thought I had missed. But my son, who was with me, saw a leg flop. On over the cut bank we hiked, and sure enough, after trailing along a couple of hundred yards, we located the poor cripple, and a second shot put him out of his misery. The bullet had smashed the right hind leg, but the hare had never flinched. I have had them keep going even after being hit hard with a cast 67-grain .25-20 bullet at 1700 feet velocity or better. But let me repeat that this is a deer-rifle game, and not something for the plinker.

Jackrabbits are so numerous that they are classed as vermin, and are poisoned, murdered in circle drives with clubs, mowed down with shotguns—anything to kill them. In other words, in a jackrabbit country you should, if you use a little common sense, get plenty of shooting.

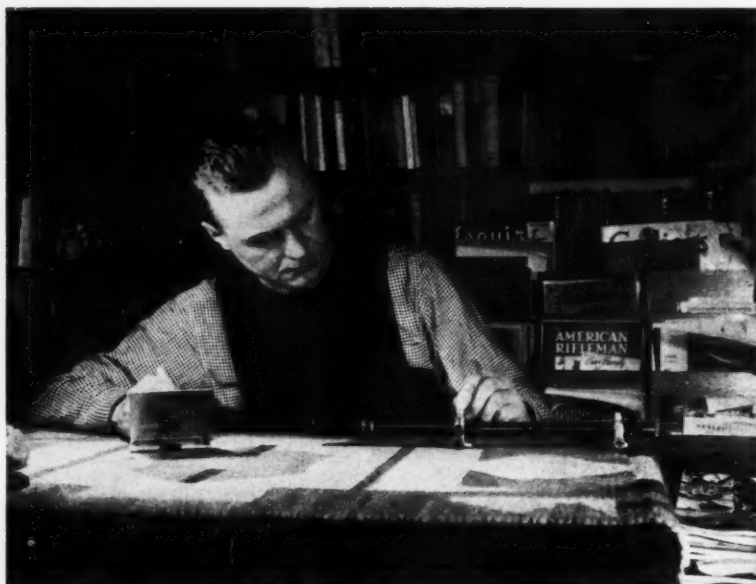
(Continued on page 35)



Look where you shoot, and shoot where you look

*Unless you know your stuff, lay off the big guns.
They rare and buck*





The author checks scope settings against notes taken in the field

BULLETS IN FLIGHT

By BERT POPOWSKI

IN PREPARING this article the writer had two definite purposes in mind. The first was to develop a formula by which wind drift could be computed on the basis of specific factors of individual loads. The second was to add something to the generally accepted manner of figuring bullet drop from known trajectory figures.

Part I—WIND DRIFT

Even a casual observer will admit that as many shots are missed because of wind drift as go astray because of vertical error, either in holding or sight setting. While the figures for calculating wind drift are readily available to anyone interested, they are not in common use as such and are little understood. The writer will herein present a tested method by which the wind drift of any cartridge may be readily ascertained by anyone, through the use of the common ballistics tables which are gladly furnished by all leading ammunition companies.

In addition to a ballistics table covering the cartridge to be investigated you will need to know the velocity of the wind, and its direction in relation to the lay of the land over which you will do your shooting. This wind information is important because it has direct bearing on the final results in two respects. The first of these is in point of drift in proportion to the velocity of the wind; the second places the amount of drift in relation to the angle formed by the bullet with the direction of the wind.

Just so every member of the shooting fraternity can get in on this, let's start with bed-rock fundamentals. Imagine that you're shooting on the face of an immense clock, with your target located at 12:00 o'clock and your firing point

at 6:00 o'clock. Then any wind blowing between 1:30 and 4:30 o'clock will deflect your bullet approximately the same.

From 12:30 to 1:30 and from 4:30 to 5:30 the bullet drift is fifty per cent of the amount it drifted when the wind was blowing within the segment indicated above. From 12:00 to 12:30 and from 5:30 to 6:00 o'clock is so near to being a head-on or following wind that no correction can be made for windage. In spite of popular belief, winds blowing in this section of the semi-circle do not hold the bullet in a straight line but blow it hither and yon until a group shot under such wind conditions will usually be spread to twice the horizontal area of any group shot with the wind definitely on one side. At least one bullet of such a group will be shot with the wind on the opposite side of the line of flight of the majority of shots and will be wide of the group. In a head-on wind it constantly fluctuates 30 degrees or more and it is easy to imagine the side-to-side whipping which affects a five-shot string fired almost directly into or with, a wind which parallels the bore of your rifle in direction.

Suppose you're shooting a five-shot group in a 15 mile per hour wind. Over any long string of shooting about three of five shots will be fired in the above average wind velocity. One may be fired in more nearly a 10 mile per hour wind, and the fifth in about a 20 mile velocity.

These adjustments are graphically recorded in Figure 1. Of course the same variation in wind drift occurs in the other half of the semi-circle; it was merely omitted to simplify explanation.

With this background information in mind, and a copy of a standard ballistics handbook at hand you're ready for

the formula. Here it is: Muzzle velocity minus remaining velocity at 100 yards, divided by 100, equals inches of drift at 200 yards, in a 15 mile per hour wind.

The questions that immediately present themselves are these: Why a 15 mile per hour wind? And, why at 200 yards? The answer to both of them is the same. We must start work at some hypothetical zero, preferably one that is located between two extremes. In order to sidetrack argument let me say that I know someone will contend that the midway point should be 150 yards, and the wind velocity 11 miles per hour. Nevertheless we'll start at the range and the velocity mentioned above.

Except for wind vagaries, the formula practically works itself. In citing the wind extremes under which bullets do their work we'll use a 5 to 10 mile per hour velocity as a minimum and a 20 to 25 mile per hour wind as a maximum. Correction for these can be made as follows: For the 5 to 10 mile velocity take 50 per cent of the drift your formula cites; for a wind of 20 to 25 miles per hour add 50 per cent to the formula results. By the time a wind reaches a velocity of 25 miles per hour you might as well pocket your hat and make your way home as best you can for you certainly won't get hits or groups you'll be proud of!

Just so we understand each other, let's read over the formula. Then, until you learn how to accurately estimate wind velocity, get the wind velocity from some reliable source—such as an airport anemometer—the muzzle velocity of your load and its velocity at 100 yards, figure the wind drift according to the formula, and set your sights, or hold off, accordingly, always remembering any variations due to any wind velocity other than the zero 15 mile per hour speed. Then, if you're shooting a consistently reliable bulls-eye annihilator I'll eat your hat if your bullet is out of the black—if you'll furnish the hat.

There is a distinct advantage in setting readily adjustable sights for windage rather than holding off. If your drift is estimated at four inches and the range at 200 yards, when actually the range is 300 yards, you will miss by six inches, since the 300 yard drift would be ten inches. If, on the other hand, you made the correction on the sight it would be two minutes for a four-inch drift at the estimated 200 yards. With the range actually 300 yards, you would have an automatic correction of six inches with a two minute windage correction, and you would miss by only four inches because of your error in estimating the range. All of which means that if you were shooting at the exact center of an object 10 inches wide you would get a clean miss if you were holding off for windage allowance, and a clean hit with sight correction.

To illustrate how the hold-off versus sight correction works in real life: Two days before this article was completed the author went jackrabbit hunting. The jacks were bedded down in mile-square rough plowed fields. The rifle was a Model 70 Bullgun, fitted with Fecker scope with crosshairs and half-minute clicks. Ammunition was handloaded with 150-grain Peters protected point bullets with muzzle velocity of 3100.

The anemometer showed a 10 mile wind velocity. A jack was spotted at an estimated 300 yards and the scope set for elevation and windage. The shot was in line, but short. Three clicks were added and the second shot was also low. Three more clicks were added—one short of the 400 yard

setting—and the jack was killed. At this range, shooting over flat fields at so small a target, it would have been virtually impossible to make hold-over corrections accurately enough to make a hit, even with these rifles and loads that will usually stay within the dimensions of a silver dollar at 200 yards.

The next day the anemometer showed 25 miles per hour of wind velocity and a swirl of soil was sifting over the fields. The rifle was a Model 70 .220 Swift, equipped with Fecker scope with post, and half minute clicks on 10" centers. Ammunition was again handloaded with 55-grain



Figure 1

Sisk Express bullets at a muzzle velocity of 3500. A jack was spotted at an estimated 300 yards and the elevation set on the scope. The drift was estimated at 7 inches and a hold-off attempted. At the shot a tuft of fur drifted off and the jack bounded away. A small spot of blood showed through the spotting scope, when he stopped, indicating where the bullet had creased his shoulder.

One moment's thought about the angle at which the jack had been lying, and his width, and it was realized that the hold-off had been only 5 inches. Had the windage screw been twirled 7 clicks instead of an attempted guess at 7 inches on the jack, this would have been another 300 yard kill. Later in the day, when sight correction replaced hold-off several kills were made at similar distances.

No rule would be a good one without suitable exceptions which also prove their consistency. If you will look at Figure 2 you'll see that the three loads given at the head of the table are of .22 caliber. The rim-fire .22 loads have double the wind drift called for by the formula, and at 100 yards, which is about the limit of their dependable accuracy, you will note that this table shows the interesting fact that high speed .22 rim-fire loads drift more than low speed ammunition. This is a phenomenon in connection with their exceeding the approximate velocity of sound in air, although there appears to be no exact critical drift point at the velocity of sound in air.

The center-fire factory loads up to and including those of the muzzle energy of the Hornet and similar cartridges have

FIGURE 2—Scale Showing Application of Windage Formula for Various Calibers***

Caliber	Bullet wt. in grains	Muzzle Energy	VELOCITY FIGURES			Application of Formula	INCHES OF DRIFT		
			At Muzzle	At 100 yds.	Difference		At 100 yds.	At 200 yds.	At 300 yds.
.22 rim*	40	124	1180	971	209	+100, × 2	4.18	x	x
.22 rim*	40	174	1400	1048	352	+100, × 2	7.04	x	x
.22 Hornet*	46	705	2625	2162	463	+100, × 2	3.70	9.26	x
.219 Zipper*	46	1195	3420	2590	830	+100, × 1	3.32	8.30	20.75
.219 Zipper*	56	1195	3100	2492	608	+100, × 1	2.43	6.08	15.20
.30-30**	110	1590	2750	2196	554	+100, × 1	2.22	5.54	13.85
.30-30*	170	1825	2200	1920	280	+100, × 1	1.12	2.80	7.00
.220 Swift*	46	1750	4140	3150	990	+100, × 1	3.96	9.90	24.75
.220 Swift**	56	1765	3760	3060	700	+100, × 1	2.80	7.00	17.50
.220 Swift*	48	1830	4140	3490	650	+100, × 1	2.60	6.50	16.25
.250-3000**	87	1795	3050	2700	350	+100, × 1	1.40	3.50	8.75
.250-3000*	100	1880	2910	2558	352	+100, × 1	1.41	3.52	8.70
.257*	117	1825	2650	2379	271	+100, × 1	1.08	2.71	6.77
.257*	87	1978	3200	2816	384	+100, × 1	1.54	3.84	9.60
.401**	200	2020	2135	1750	385	+100, × 1	1.54	3.85	9.62
.270**	150	2710	2850	2600	250	+100, × 1	1.00	2.50	6.25
.270*	130	2880	3160	2970	190	+100, × 1	.76	1.90	4.75
.270**	100	2930	3630	3283	347	+100, × 1	1.39	3.47	8.67
.30-06*	180	2915	2700	2505	195	+100, × 1	.78	1.95	4.87
.30-06**	150	2995	3000	2760	240	+100, × 1	.96	2.40	6.00
.405**	300	3220	2200	1925	275	+100, × 1	1.10	2.75	6.87

*** Graph based on wind velocity of 15 miles per hour; see text for compensation for other wind velocities.

** Figures taken from Winchester Ballistics Tables.

* Figures taken from Western Ammunition Handbook.

x Range at which cartridge is inadequate.

Compiled from September 1 to December 31, 1937.

double the wind drift called for by the formula, and their effective range is 200 yards. The drift setting for these cartridges, then, should be doubled—at the ranges specified in the table.

Those individuals who may contend that I've limited the accurate range of these loads will get no argument out of me. If they can, for instance, shoot the .22 rim-fire load with consistent excellence at the 200 yard range they're to be complimented, not argued with. Similarly, if they can buck varying wind conditions to the 300 yard mark with the Hornet, they're also to be commended.

Then, too, I suspect that someone will run his finger down the "effective range" column of a ballistics table and find many loads that boast an effective range well beyond that stated in the formula graph. However, this method of figuring wind drift has not been extended beyond the 300 yard mark because experimental work has not been done beyond this range. I suspect that a goodly number of cartridges will hold up for some distance beyond 300 yards, but since 98 per cent of the target, varmint, and game shooting is done under that range this article is limited to those ranges which will be of assistance to the majority of devotees of the rifled tube.

Part II—TRAJECTORY

The following information is intended for rifles equipped with peep or telescope sights mounted a normal distance above the bore. Its correct use will enable the average shooter to zero his rifle at 100 or 200 yards, and from that zero be able to set his sights to the longer ranges suitable

for his arm with the assurance that he will be sighted closer to his mark than he can hold.

The only equipment you will need to follow the following reasoning is a standard trajectory table showing the trajectory of the cartridge you wish to investigate, or the trajectory of any cartridge with a similar muzzle velocity.

For convenience in sighting for loads not listed in the ballistics tables it should be noted that: *the trajectory of all bullets, REGARDLESS OF THEIR WEIGHT, SHAPE, OR CALIBER, starting at a given speed, will run approximately the same to 300 yards.*

I know, I know; I felt that it was impossible that the 6.5 Mannlicher 129-grain bullet, starting at a muzzle velocity of 2400 feet per second, should trace approximately the same parabola as the 220-grain .30-'06 bullet launched at the same speed. Only a degree less absurd was the supposition that the .22 Hi Power, throwing its 70-grain jacketed slug at the opening speed of 2800 feet per second should take the same path as the 150-grain bullet loosed by the .270 rifle. Nevertheless if you move your eye over to the trajectory part of the Western ballistics table you'll notice that the 100, 200, and 300 yard trajectories of the 6.5 Mannlicher and the .30-'06 are .81, 3.54, 8.83 and .86, 3.68, 9.15 inches, respectively. If you can improve on .05, .14, and .32 of an inch of error at 100, 200, and 300 yards, you'll be entitled to all the gold medals and silverware you can truck home.

A comparison of the figures of the .22 Hi Power and the .270 over the same ranges shows the same slight difference. The former is given a trajectory of .62, 2.75, 8.0 inches

FIGURE 3—Bullet Drop From 100-Yard Zero

From 100 to 200 yds.	200 to 300 yds.	TOTAL DROP From 100 to 300 yds.	SIGHT INCREASE 100 to 300 yds.
2.3* or 1.25**	6.1* or 2**	1.25** plus 2** or 3.25**	3.25**

* Indicates inches of measurement.

** Indicates minutes of angle.

FIGURE 4—Comparison of Holding Over as Against Sight Adjustment

Method of sighting	Range Estimated at 200 yards	Actual Bullet drop at 300 yards	Error or miss at point of impact at 300 yards
Holding over	2.5 inches	9.75 inches	9.75 minus 2.5 or 7.25 inches
Sight adjustment	1.25 minutes	9.75 inches	9.75 minus 3.75 or 6.0 inches

as against .63, 2.97, 7.82 at the ranges cited above. In fact, pick any two cartridges of equal muzzle velocity and you'll find the same close adherence to the rule, *up to 300 yards*. Beyond that point any number of factors, chief among which is bullet shape, enter in to destroy a continuity of it as a rule.

Now for a simple practical substitute for the trajectory-times-four rule, to learn the bullet drop and hence the sight correction, let us suppose you're shooting a load with a muzzle velocity of 3200 feet per second. A glance at the ballistics table shows you that the 87-grain .257 bullet has a similar muzzle velocity. After targeting the rifle so that it hits the point of aim at 100 yards you memorize the trajectory of the .257. At 100, 200, and 300 yards it is .50, 2.3, and 6.1 inches. If your memory has a tendency to travel a slippery track you'd better commit these figures to a tag fastened to your gun case.

The rule I wish to expound is as follows for the above load: The bullet drop at 200 yards from the 100 yard zero is approximately the same as the 200 yard trajectory, or 2.3 inches, and requires a sight raise of 1.25 minutes. This gives a new zero, at 200 yards. From this zero the bullet drop at 300 yards is the same as the 300 yard trajectory, or 6.1 inches, and requires a sight raise of 2 minutes. So, a total sight raise of 3.25 minutes from the 100 yard zero will put you on the point of aim at the 300 yard range.

The ammunition companies are prone to use round numbers in giving load velocities. Many loads will actually run well under the tables, in velocity. For this reason it is usually well to add one-half minute to the 300 yard range setting obtained from the tables and the formula.

Also, when using a scope or sight set right down on the receiver, the initial angle in getting the 100 yard zero will be less, and with a sight so mounted it is usually well to add one-half minute for the 200 yard setting. When using standard Fecker or Lyman scope mounts this 200 yard one-half minute addition need not be made, but the above addition to compensate for actual velocity under the figures cited in the tables may be necessary.

The high power calibers suitable for shooting at 300 yards or more are, or should be, sighted in at a 200 yard zero. In shooting at greater distances the common practice is to hold over a sufficient amount to compensate for the increase in range. However, if the arm is equipped

with readily adjustable peep or scope sights the proper correction on the sights will result in closer shooting than will holding over. The amount of such error is illustrated in Figure 4.

While the .257 has been used as an illustration in this article, the rules laid down here are the same for all calibers, from the Hornet up through all the high power loads.

To restate the system in other words, applicable to any high power cartridge, *from 100 to 300 yards*: If a rifle is zeroed at 100 yards, the 200 yard trajectory in inches indicates the amount the bullet will fall in traversing the 100-yard interval between the 100 yard zero point and the 200 yard point of impact. The trajectory in inches at 300 yards with the arm zeroed at 200 yards indicates the fall of the bullet in inches while it is traveling the 100-yard interval between that zero point and 300 yards.

If one wishes to shoot at 400 or 500 yards—with any rifle and caliber fit for these longer ranges—he will not be far off if he will ascertain his sighting increase from 200 to 300 yards and, in adjusting the sights from 300 to 400 yards, increase the same number of minutes of elevation, plus one minute. For 500 yards add the same number of minutes as for 400 yards.

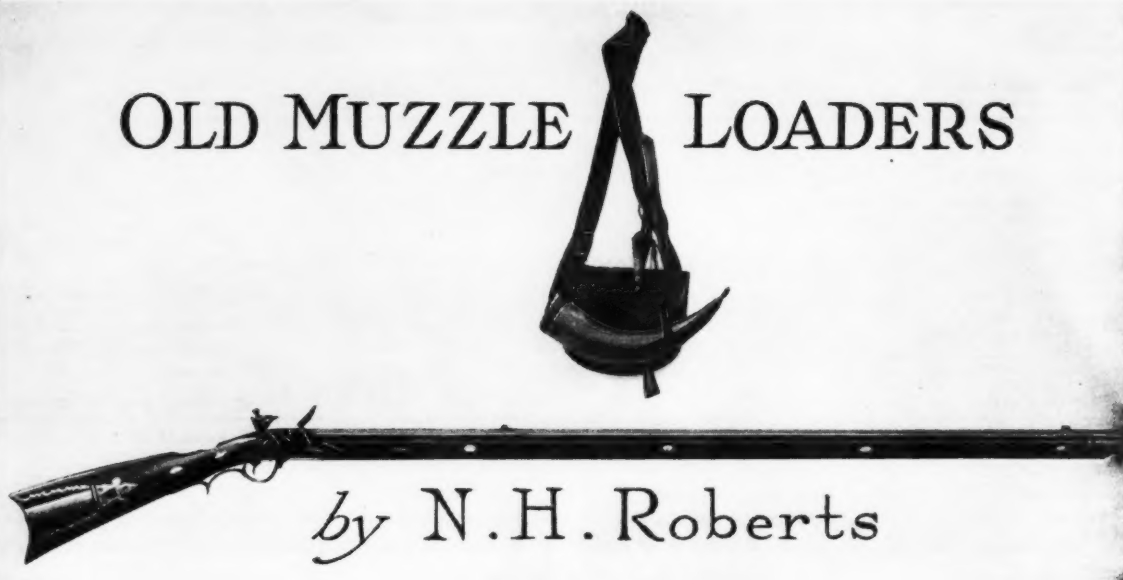
Thus, supposing that we again take the 87-grain bullet in the .257 caliber as our guinea pig, and zero it at 200 yards, the table given in Figure 5 will illustrate the progressive sight setting:

FIGURE 5

Progressive yardage	200 zero to 300	300 to 400	400 to 500
Increase in minutes	2	2 plus 1	3
Total increase from 200 yards	2	2 plus 3	5 plus 3
Total drop from 200 yards	6.1 inches	20 inches	40 inches

While the above rule is not suitable for the Wimbledon matches it will, nevertheless, put the first bullet on the paper for the target shooter, allowing him to make further sighting correction from its point of impact, and will put the first bullet in any deer that the big-game hunter encounters in a setting which prevents closer approach before firing that initial shot.

OLD MUZZLE LOADERS



by N.H. Roberts

EARLY IN JULY, 1937, my wife and I motored to Bennington, Vermont, to spend a few days with our friend Dr. P. A. Matteson, and try out some of his fine muzzle-loading rifles. Dr. Matteson has the finest and most extensive collection of splendid muzzle-loading rifles and modern high-power arms of anyone in that state and one of the finest in New England. He has a private range a few miles out of the city on the ancestral farm where he can shoot at any range from 25 feet to 600 yards. The original cornbarn has been converted into a shooting house, equipped with loading tables and other accessories, and here we have spent many pleasant afternoons shooting his different rifles at various ranges.

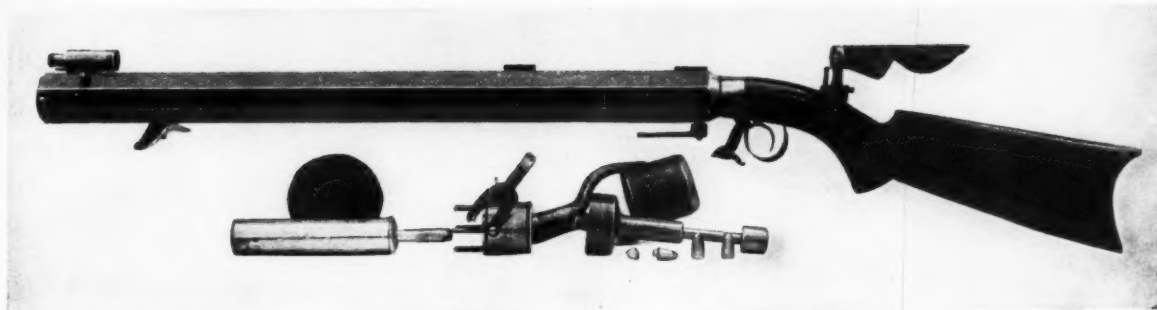
The doctor is certainly an expert in all matters pertaining to the use of the muzzle-loading rifle and knows much of the history of many of the noted old-time rifle-makers. However, he is a busy dentist with a large practice, has no rifles for sale and no time for answering letters: therefore, I ask my readers not to annoy him with correspondence.

On the day following our arrival the doctor suggested that I should try his third N. S. Brockway rifle that he had recently acquired. It has a 32-inch full-octagon barrel, .45 caliber, weight 16 pounds, carries the usual small globe front sight with shade, a rear peep sight screwed into the tang and adjustable by turning it up or down. Do not get the idea that such a rear sight can not be adjusted very closely, but as the stem of the peep is cut with a thread having one hundred turns to the inch a one-half turn changes the elevation just 1/200 inch. The rifle also has fine double set trigger, nice stock, and all the original accessories such as false muzzle, bullet starter, bullet swage, mould, patch cutter, etc. In a previous article I illustrated Doctor Matteson's two other Brockway rifles, but I personally like this third rifle the best. It is in perfect condition inside, almost so outside, and in my opinion is just the right weight for the finest accuracy, as well as being pleasant to handle. Rifles weighing 25, 30 or 40 pounds are very tiresome to use, and require extreme care in handling and loading, for should they accidentally fall, the stock is nearly always broken and the arm ruined. In my interview with the late Norman S.

Brockway, in July 1936, Mr. Brockway stated that he had repeatedly and conclusively proven that rifles of .38, .40 or .45 caliber weighing from 16 to 20 pounds are every whit as accurate at 40 to 100 rods as any heavier arm; and this was also the opinion of practically all the noted makers of muzzle-loading percussion-lock rifles in the old times.

The target that I shot with this Brockway rifle, shown herewith, is a 10-shot group measuring just $1\frac{1}{16}$ inches on centers of bullet holes farthest apart. My eyes are not as good as they were sixty odd years ago, of course, and I can no longer do really fine shooting at 100 yards or more with any kind of iron sights, and in the group shown the 6th, 7th and 10th shots went out of the center group because I did not hold right—not because of any fault of the rifle or load used. If this rifle had a good telescope sight, any skilled marksman could make 1-inch groups or smaller with it at 100 yards rest, any day. The bullet used in this rifle is the old "sugar loaf" type, cast of pure lead and swaged to shape and weighs 252 grains. The patches were cut from white broadcloth shirting, were wet with saliva before loading and the rifle was wiped with a dry cloth after each shot.

After making the group with the Brockway rifle shown, I next tested a rifle made by the late Horace Warner, of Syracuse, New York, which is another of the doctor's finest rifles. It has an extremely heavy octagon barrel 27 inches long, is .45 caliber and used the two-piece bullet swaged together, weighing 260 grains, with a charge of 90 to 100 grains Fg black or King's Semi-Smokeless powder. The barrel is cut with eight very narrow lands and wide grooves, somewhat like the Pope system of rifling. As will be seen, this is an under-hammer rifle, the mainspring forming the trigger guard; and instead of using the common percussion cap, it is fired by means of a shotgun primer that is set in place with a small wrench, in order to get a larger spark and improved ignition. The sights are the customary small globe with long shade, and a rear peep which screws into a base that is integral with the tang and has adjusting screw in front of the sight that provides very close adjustment, as this adjusting screw is cut with a thread having one hundred turns to the inch. Windage is provided by a sliding plate in the



Horace Warner .45-cal. target rifle

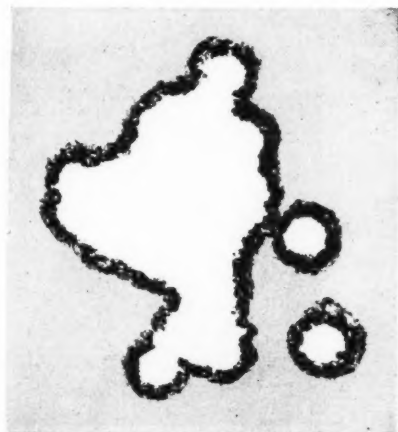
rear sight disc that is moved either way by means of fine screws. Base blocks for a modern telescope sight were attached by a former owner. False muzzle, starter, swage, bullet mould, patch cutter, chargers and a small lead mallet for striking the starter, came with the rifle.

During the 1880's and early 90's Horace Warner was one of our most noted makers of super-accurate, heavy, muzzle-loading target rifles for shooting at 40 to 100 rods. During this same period the late H. V. Perry, of Jamestown, New York, was another noted maker of the same type of rifles, and there was for many years a great rivalry between Perry and Warner, each claiming that his rifles were the most accurate at all ranges. During the early days of *The Rifle*—the forerunner of our fine AMERICAN RIFLEMAN—these two men shot numerous matches at 40 rods rest in an attempt to prove which man really made the better rifle. As I recall, Perry advocated the gain twist system of rifling, while Warner used the regular twist. These matches were shot from a solid bench rest, with several wind flags at different distances from the target to show the direction and force of the wind. Each man had his own bench rest, so that both could fire at about the same time and thus under the same conditions of wind and light. The first match of which I have record was won by Perry with his .45-caliber rifle. The second match—a month or so later—was won by Warner. The third match a few months later was won by Perry, while the fourth match was won by Warner. This "turn about" in winning was repeated for a period of nearly two years, so that after the last match each man had won an equal number of times, and no one really knew any more about the relative accuracy of the two rifles than before the matches were shot. These matches between Perry and Warner were reported in *Forest and Stream* and *The Rifle* at the time, and many of the groups were given. The scoring

was by string measure, which was generally used in such matches in those days.

It is quite probable that this Horace Warner rifle of Doctor Matteson's was used in some of these matches with Perry, as there came with the rifle when the doctor bought it a number of targets that had been shot with it, no doubt by the maker, in testing it or in matches in which this rifle was used. Two groups shown are among the smallest of these and according to a report in *The Rifle* were shot at 40 rods rest using globe and peep sights. Several such groups are shown in the early issues of *The Rifle* and *Forest and Stream*.

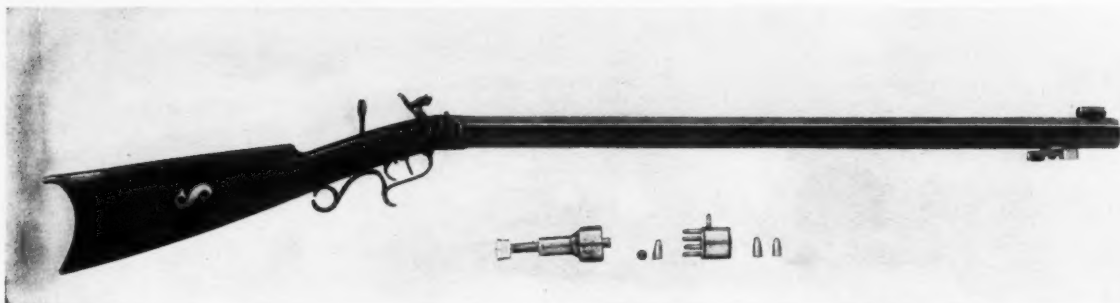
Back in the Colonial days, continuing through the Civil War times and along well into the 1880's, double-barrel rifles were quite popular in this country and were made by nearly all of the best rifle-makers. In 1882 I traded with a jeweler for my first double rifle, made by C. E. Overbaugh, of Philadelphia. It had 26-inch barrels, .40 caliber, made for the "picket" type bullet which weighed 275 grains and was used with a cloth patch and 80 grains Fg black powder. The rifle also used a bullet of 250 grains weight with a charge of 90 grains of powder when it was desired to obtain somewhat higher velocity than the heavier bullet gave. This rifle shot very accurately with either of these bullets, and especially so with the 275 grain bullet and 65 grains of powder—Curtis & Harvey "Diamond Grain No. 6." Firing the right and left barrels alternately at 100 yards, using a sand-bag rest, one could keep his bullets inside a 2½-inch ring with the 65 grain charge; the 80 grain load kept in a 3-inch circle, and the 250 grain bullet with the 90 grain charge would keep in a 4-inch ring. At 200 yards the groups averaged 5, 6 and 9 inches for the respective bullets and loads above, and the arm weighed but 8 pounds. This rifle balanced and handled like a fine shotgun and was the best hunting rifle of the muzzle-loading type that I ever owned. Even in those days when most of the work on rifles was done by the old hand methods the makers appeared to have no real trouble in making both barrels shoot together and give nice accuracy, and were able to sell these double



Left: 20-shot group at 40 rods by .45-cal. Warner rifle shown above



Right: 10-shot group at 40 rods by same rifle



Brockway .45-cal. target rifle

rifles at \$80.00 to \$100.00, as the original owner of this Overbaugh double rifle paid but one hundred dollars for it when new. Yet today with all our improved machinery that will do most of the work that in the old times was done by hand, we are told that a good double rifle for our modern cartridges would cost around three hundred dollars.

Among the rifles that Doctor Matteson owns is a nice double barrel "deer rifle" by that noted maker, N. Lewis, of Troy, New York. This rifle has 25-inch barrels, is .44 caliber, using a round ball, cloth patch, and a charge of 30 to 40 grains of black powder. The rifle is perfect inside, fine outside, weighs just 7 pounds, and balances very nicely as well as showing very nice accuracy at 50 to 100 yards. Along in October Doctor Matteson, knowing my liking for the double rifle, very kindly shipped this Lewis rifle to me so that I might test it on my range and use it for deer hunting if I so desired. Soon after receiving the rifle I took it to my range, and after firing a few shots to adjust the rear sight, I shot the group of six shots that is illustrated. The fourth shot was called as a 3 o'clock 9, and was not the fault of the rifle or load. Again, on December 4th, as the weather was favorable, I took this rifle to the range and tested it at 65 yards, shooting in the sitting position, and at 100 yards using the sand-bag rest. In this shooting the right and left barrels were fired alternately, and it showed that this double-barrel muzzle-loading rifle is fully equal in accuracy to our modern .30-30 and similar hunting rifles. Here in New Hampshire today fully 90% of our white tailed deer are shot at ranges of 50 to 75 yards, and my targets show what a fair shot could do to a deer with this little muzzle loader, while at even 100 yards a good shot would have no trouble in killing his deer with the two shots at his instant command.

When I was a boy my favorite uncle taught me how to use the muzzle-loading rifle. He repeatedly told me that if the bullet was not nicely centered on the patch "the bullet will not hit in the same group as the others." He also impressed upon me the fact that if a patch is not cut practically perfect a bullet fired with it will not "hit in the same place as a bullet fired with a perfect patch," as he expressed it. I happened to think of these two points when I was testing the Lewis deer rifle on December 4th, and for the 5th shot at 65 yards I purposely placed the ball somewhat off center on the patch, then fired that shot with a perfect hold and got an off shot at 4 o'clock. Then for the 7th shot I selected a patch with a small piece cut out of it, loaded the rifle carefully, centered the ball well on the patch, used especial care in holding that shot, and the point of impact was about two inches to the left of the shot from the

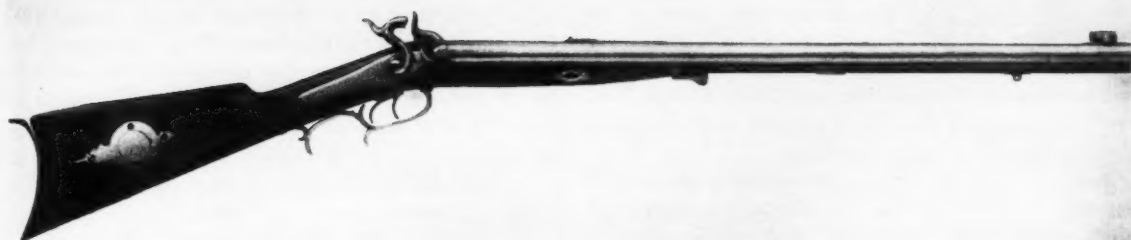
left barrel in which a perfect patch was used. This will serve to show the inexperienced user of the muzzle-loading rifle that care *must* be used always to center the ball, or bullet, well on the patch and that only perfectly cut patches should be used when it is desired to have all bullets give the same point of impact on the target.

I was so pleased with the little Lewis double rifle and its performance at the target that I used it two days for deer hunting; but the deer were evidently afraid of this rifle, for I failed to see one either time I hunted with it. However, I have no doubt that I could easily have killed my deer with this Lewis rifle had I been fortunate enough to see one in reasonable range. I am a firm believer in conservation of our deer and other wild game, which, notwithstanding all statements to the contrary, is getting mighty scarce in the New England States except Maine. I personally would be glad to see a law passed in New Hampshire that would require all deer hunting to be with single-shot rifles. Then our deer would have a sporting chance during the hunting season, instead of being murdered by a stream of bullets from the auto-loading rifles now used by so many of the deer hunters who call themselves sportsmen. With the single-shot rifle our hunters would also learn to shoot accurately and make the first shot count, as did our pioneers who settled this country when it teemed with big game, wolves and bad Indians. Unless the legislators stop passing so many anti-gun laws we will soon have to do our deer shooting with the bow and arrow anyway, so why not use the single-shot rifle before we are obliged to come to the bow and arrow?

Incidentally, why does not some enterprising rifle-making concern in this country place on the market a good double rifle for some of our excellent rimmed cartridges? Those who have had experience with the double rifle know that for woods shooting of big game it is so far superior to any other

10-shot group at 100 yards by .45-cal. Brockway rifle shown above





N. Lewis double-barrel deer rifle

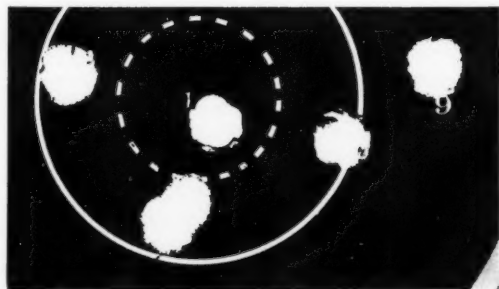
type that comparisons are useless. No kind of repeating rifle has the balance and hang and comes up to the shoulder so nicely and points so naturally as a fine double-barrel rifle. Surely a good, accurate, well-balanced machine-made double rifle of medium weight—practically 8 pounds—could be made in this country and sold at around \$150 or \$200; and there are many men who would buy such a rifle at this price, who cannot afford to pay \$300 or \$400 for a good English double rifle. Why do we not have such a rifle when we know that years ago the old-time rifle-makers turned them out largely by hand and sold them for \$100 to \$150 or even less?

Flint-lock rifles in really fine condition are very scarce in this country today, and in Doctor Matteson's collection is to be found one of the finest rifles of this kind. This rifle was made by "Peter & David Moll, Hellerstown, Pa.", as marked in gold on the breech of the barrel; also the date "Jan. 30, 1833". The rifle has a 45-inch full-octagon barrel for the .45 caliber round ball, and weighs 12 pounds. The full-length stock of nice tiger-flame maple has a number of ornamental pieces inlaid into it, while the patch box and all other mountings are of fine brass. The bore of the rifle is perfect, very fine outside, and gives nice accuracy at 60 to 100 yards, as shown by the numerous groups that I have seen Doctor Matteson make with it. By nice accuracy I mean that I have seen the doctor place five or six consecutive bullets almost in one hole, so that a silver quarter would cover them, when shooting at 60 yards rest. The original hunting bag, powder horn, small horn for the fine priming powder, horn charger, bullet mould, etc., are with this rifle, as shown in the title cut on the first page of this article. If we only knew its history, what interesting reading this would make.

Shooting the fine muzzle-loading rifles is a very interesting sport, and during my travels through eight or ten states summer before last I had the pleasure of meeting a good number of skilled riflemen who stated that they find shooting

the fine old target rifles, both muzzle and breech loaders, is far more real sport than the military rifle shooting now in fashion. To which sentiment I heartily say Amen. Those who have had experience in shooting the fine old muzzle-loaders, the fine breech-loading single-shot target rifles, and the modern high-velocity arms, know that there is a certain fascination in using these old target rifles at 200 yards off hand that is wholly lacking when using the latest fashion high-velocity arms of today. Also a fine single-shot rifle like the .32-40 Pope, for instance, will retain its gilt-edge accuracy for thirty to fifty thousand rounds, if properly cared for. It will last more than a man's lifetime, while these high-velocity arms are ruined by erosion after firing three to six thousand rounds, in spite of the very best care. Also, the old breech-loading target rifles have a far better balance and appearance than the modern bolt action repeaters.

On my ninth birthday, more than half a century ago, my uncle—who was an enthusiastic hunter-rifleman and had served during the latter part of the Civil War in the noted Berdan Sharpshooter Regiment, and thoroughly knew his rifle-shooting, I assure you—gave me a light .30 caliber muzzle-loading percussion-lock rifle, with a short barrel (21 or 23 inches, I believe) half stock, and open sights, that weighed about six pounds. With it were a Colt's powder flask, a leather bullet pouch and a bullet mould that cast both round and conical bullets. Uncle Alvaro then began teaching me how to properly handle and shoot a rifle, cast the bullets, cut patches, clean and care for the rifle, etc. How I wish I had that little muzzle-loader today! But, fool-like, after using it about six years I traded it for a much inferior rifle. How I would like to know the history of that little rifle before it fell into Uncle's hands! It was no doubt made for some Southern gentleman's son, as Uncle picked it up on a Southern battle-field after a Confederate defeat. There it lay beside a mere boy in gray who had fallen in the fight, and the little rifle had a bad dent in the barrel several inches from the muzzle. Uncle said it was "such a nice little rifle" that he carried it away, had the barrel cut off below the injured point, and after the War gave it to me as above related. Thus it happened that I



6-shot group at 65 yards by .44-cal. Lewis double-barrel rifle shown above. Three shots with right barrel and three with left

was brought up on the muzzle-loading percussion lock rifle, still like and shoot these arms, and am much pleased to see the fine sport of shooting them again becoming so popular. Now if we could just revive the Schuetzen game at 200 yards offhand, and make it popular again as it was during the 1880's and early 1890's, to go along with our military rifle shooting and the small bore, these idiotic anti-gun laws would soon become a thing of the past and the United States would in truth be a "nation of riflemen".

As so many younger men are now becoming interested in shooting the muzzle-loading rifle, who have no experienced coach to help them, I trust that I shall not be considered egotistical in this matter if, in the hope that these may prove helpful, I offer the following hints regarding the handling of these rifles.

Patching Materials

Each muzzle-loading rifle has its own peculiarities that must be learned by actual shooting before the finest accuracy can be obtained. Some of them require a thick patch like bed-ticking, while others absolutely refuse to shoot accurately with such patches, requiring, instead, fine cotton or linen. Our mercerized cotton and broadcloth shirting can be cut into patches that are excellent in many of these rifles, but I well remember that Uncle Alvaro always insisted that only fine "shirt-bosom linen" patches would give the finest accuracy in a muzzle loader, and he always used such patches in his .40 caliber muzzle loader. Also in those days there was much discussion among experts as to whether the best accuracy was obtained with a patch wet with saliva or with sperm oil. Each expert had his preference in this, which he stoutly maintained was the only *right way*, and claimed that his small groups *proved* that he was correct. Also there was, especially among the target shooters, continual discussion as to whether the paper patch gave better accuracy than a cloth one, and if a paper patch was the best, whether it should be a "two strip" or a "cross" patch. Most of the noted rifle-makers such as Brockway, Horace Warner, Perry, and Billingham, made their target rifles for use with the paper patch cut in one of these forms, and their rifles certainly gave accuracy at 40 rods that is equaled by very few indeed of our modern rifles today.

Powder

Finding the *right kind* and grain of powder for each rifle requires experimentation and time, but, in general, rifles of .45 caliber or larger shoot finest with Fg powder, while those of smaller bore give the best accuracy with FFg or possibly even a finer grade. When I commenced rifle shooting, my Uncle Alvaro always swore by Hazard's "Kentucky Rifle" powder, and he always used Fg granulation in his .40 caliber rifle. However, my little .30 caliber rifle required FFg powder, on account of the smaller bore. About 1897 I heard of the English "Curtis & Harvey Diamond Grain No. 6" black powder, and bought my first can of it in Boston. Since then I have for many years used this powder in comparison with the best American makes, and I believe it to be the very best black powder for use in muzzle-loading rifles. It burns moist, is very clean, somewhat stronger for the same charge than our American powders, and gives the very finest accuracy in these rifles. It is also, according to my experience, the finest black powder for use (with a small charge of low pressure smokeless as a priming charge)

in the breech-loading Schuetzen or target rifle. This powder is not now on sale in this country, but I get it from the London makers for my own use. Possibly by this spring E. M. Farris, Secretary of the National Muzzle Loading Rifle Association, may have it in stock. King's Semi-Smokeless appears to be the best American powder that we now have for the majority of these old rifles. Do NOT attempt to use any kind of smokeless powder in these old muzzle-loading rifles, as they are practically all made with soft-iron or cast-steel barrels that have not the necessary strength to withstand smokeless powder pressures.

The correct charge of powder for each rifle has always been a somewhat debated point, the old pioneer rule being that for the round-ball rifle the charge should be just enough to cover the ball when held in the palm of the hand and powder poured over it. However, this is far from a scientific method of determining the charge, and charges measured in this way are sure to show considerable variation in actual weight, or bulk, and will give different points of impact on the target unless the range be short. Another rule is that we should use "three grains weight of powder for each eight grains weight of bullet"; for instance, a bullet weighing 240 grains should be used with 90 grains of powder. But here again we find that the rule does not always prove to be correct, and we may secure better accuracy with a charge of 75 or 80 grains instead. However, this rule is approximately correct for most of the American-made muzzle-loading rifles if the arm is in sound condition. Another rule that my uncle taught me, was: "Multiply the bore of the rifle by 2 if the caliber is .38 or larger; if less than .38 caliber bore, multiply by 1½." Thus, by this rule, for a .42 bore, or caliber, rifle we have $42 \times 2 = 84$ grains of powder as the correct charge; with a .32 caliber rifle, $32 \times 1\frac{1}{2} = 48$ grains as the right charge. This rule works all right unless the rifle was made for an extremely heavy bullet, in which case the caliber multiplied by 1½ gives the right charge of powder. For instance, take a .45 caliber muzzle-loader using a bullet weighing 350 or 400 grains. Multiply .45 by 1½, which gives 68 grains as the right charge for that arm, which is generally about right for such a rifle, as shown by actual tests.

Caps

In my boyhood days I usually used the then well-known "G. D." caps, as they were cheaper than the U. M. C., Hicks, or W. R. A.; but the latter were by far the better, as these were sure-fire while the "G. D." caps frequently mis-fired and were named "G. D." for that reason—according to my uncle's version. The best caps for muzzle-loading rifles that I have ever used are those made by Eley Brothers of London, which are still made expressly for use with black powder. They are sure-fire and are not nearly as corrosive as the older American caps used to be. The Eley Brothers caps cannot be obtained in this country, but are on sale in nearly all the sporting goods stores in the larger cities in Canada, and at the Hudson's Bay Company Posts clear up into the Arctic regions, where many of the Indians and trappers still use muzzle-loading shotguns.

Bullets

The old-time rifle-makers always stated that bullets should be cast from pure lead, not hardened in any way, and this is right for the majority of muzzle-loading rifles.

(Continued on page 36)

FILLING THE GAP

By F. C. NESS

WINCHESTER has now closed the gap between their heavy high-priced match rifle and their light, short low-cost training rifle for juniors. The new Winchester Model 75 target rifle is a medium-priced and medium-weight match rifle. The maximum weight with 1¼-inch leather sling is 8 pounds and 10 ounces. This new rifle, which is in the \$30.00 class, reveals that Winchester has learned much about designing and manufacturing small-bore target rifles.

The new M-75 has many features in common with the standard M-52 match rifle. One is a good 28-inch target barrel, tapered and somewhat lighter than the 52 barrel, but otherwise identical. The same 52 checkered steel buttplate is used, as well as the 5-shot box magazine. Also the same sling and adjustable barrel-band with the new adjustable swivel base. The new rifle has a side-lever safety similar to that on the M-52. It has a speed-lock, and cocks on the opening motion of the bolt. The stock dimensions also are similar, the M-75 having 1/16-inch more drop at the comb and 1/4-inch more at the heel than the 52. The M-75 has a semi-beavertail fore-end, a pistol grip, and a high comb for telescope-sight use. In fact its factory sights, of new Winchester design, are of telescope height.

The Winchester detachable target front sight has a hood and three interchangeable apertures and post. Its discs are of a distinctive shape, made deep to attain telescope height. The Winchester rear sight is an extension peep, which looks like a modified 52W Lyman extension sight. Its base is on the rear left of the receiver. The round extension arm is held by a vertical coin-slotted thumb-screw. The sight head holds a removable target peep disc. The elevation scale, on the left, is marked off in 25-click units, each click being worth 1/4-minute. The clicks are distinctly felt and heard. The windage scale, in front of the peep, is graduated in 10-click units, each click worth 1/4-minute. The windage knob is on the right side.

Both screws have left-hand threads, making the direction of turning natural. A clockwise revolution of both screws moves the peep (and the center of impact) down and to the left. The windage click-detent adjustment has a stiff spring-tension lock, while the elevation adjustment has a very large thumb-screw lock, slotted for a coin or large screw-driver. Because of play and lost motion in the mechanism, it is difficult to make an accurate change of adjustment in the middle of a string. These Winchester sights are therefore not practical for match shooting, unless the shooter makes sight corrections by holding off. Undoubtedly there will be forthcoming soon a low-priced Wittek-Vaver target sight for this practical rifle.

The small receiver on this rifle is sufficiently heavy and rigid for target accuracy. Indoors, the machine-rest groups ran from 1.2 inches to 1.85 inches at 100 yards, with a 10-shot average of 1.38 inches for 50 shots. At 50 yards the indoor rest groups, fired by Dave Carlson, included two of possible size. Outdoors, fired prone on a dark, windy evening, the rifle gave us 98 and 100 at 50 yards, and 96 and 94 at 100 yards. From bench rest it indicates an ability to shoot 1¼-inch 10-shot groups at 100 yards outdoors. The adjustable barrel band must be kept very tight for bench-rest accuracy, and slightly looser when the sling is taut, as in prone shooting. I have just fired a box of .22 Long Rifle Smokeless from standing position, slow and rapid, with this rifle, and it appeals to me strongly for

four-position shooting. I believe I should prefer it to the standard 52 Winchester for such matches.

The stock is very comfortable in both positions, and the adjustable sling-swivel position makes it possible to accommodate the reach of practically all shooters. This should be a fine arm for girls and boys who have graduated from their first training rifle at the age of from 14 to 18 years. The stock dimensions are: length of pull, 13¼ inches; drop at comb, 1⅝ inches; drop at heel, 2¼ inches; with 3 inches pitch down at the muzzle. The pistol grip and fore-end grip both feel comfortable to the hand, and the trigger-pull, of normal weight, has a clean let-off. All in all, it is a very desirable training rifle and light-weight target rifle. It has a clip magazine which can be removed by the coach. We do not recommend, for training purposes or for junior use, any rifle having a tubular magazine.

For those who want to use a scope sight for target or sporting purposes, this M-75 has screw holes for attaching standard M-52 scope bases. The rifle can also be had equipped with bases for a new Winchester 8X scope sight. For use as a sporter, the M-75 should be purchased without any sights, at a price of \$24.95.

Some time before this new Model 75 was projected, Winchester brought out another .22 rifle, which latter I consider even more important, because it was designed as a training rifle for the very young beginners—those formerly forgotten kids of from 6 to 12 years, who find most arms too long in the butt, if not also in the barrel. I refer to the new Model 67 Junior single-shot bolt-action rifle. This rifle weighs only 4½ pounds, and can be had with a barrel as short as 20 inches or as long as 27 inches. The butt-to-trigger stock-length is optional from 12 inches up to 13⅜ inches. The vertical safety comes into the line of sight when on, making it most obvious to the youngster, and the bolt can be removed easily by the coach for safe uncoached aiming practice. This is a fine kid's rifle.

Between the M-67 Junior and the new M-75 is the Winchester M-69 clip-loading repeater, with a peep on the bridge and a hooded bead on the muzzle of its 25-inch barrel. This low-priced repeater weighs 5 pounds. The buttstock measures about 13½x1⅝x2⅛ inches, with a pitch down of about 2 inches. It is a good, practical, Junior training rifle, which, however, needs a target-type front sight, and a scope sight for adult sporting use.

From the standpoint of relative weight, there is, next in line, the new M-52 Sporter, which has a 24-inch barrel and weighs 7¼ pounds, but it is in the high-priced class. It offers a choice of Lyman receiver sights, a gold bead with hood in front, and a man's-size sporting-type stock. The buttstock dimensions are 13½x1⅝x2½ inches. It has the standard M-52 action, and is the lightest adult-size small-bore rifle made by Winchester.

Somewhat above the new Model 75 target rifle, in both weight and price, Winchester has the well-known standard Model 52, with semi-beavertail target stock and a weight of 10 pounds when equipped with 1¼-inch leather sling. The butt-stock has a high, full, straight comb, stock dimensions being 13¼x1⅝x2 inches. This standard M-52 (28-inch barrel) can also be had with full beavertail Marksman stock, and almost any combination of the popular target sights.

At the head of the Winchester list is the popular Heavy Barrel M-52 match rifle, with Marksman stock and a weight of 12 pounds, with sling.

HOME GUNSMITHING

By "PROFESSIONAL"

WELL, ANOTHER MONTH HAS PASSED, and I am glad to be back with you again. The old pipe seems to be drawing pretty well, so let's see. . . .

I guess this is as good a time as any to say a few words about that indispensable but often abused and misunderstood tool—the screw-driver. To the average mortal a screw-driver is just a screw-driver, but to the skilled mechanic—and gunsmith especially—it is a highly specialized tool, with a personality all its own.

The screw-drivers that you buy have the wrong form of blade, this being wedge-shaped, while screw slots have straight sides. These screw-drivers, if used as they are, will ruin screw slots; so take a file, preferably a crossing file which has oval sides of two different arcs, and dress the screw-driver blade so that the sides are parallel, or the blade is even a little thicker at the end than just back of it.

You can make good screw-drivers yourself from octagonal chisel steel in sizes up to $\frac{3}{8}$ -inch. Shape the edge with a crossing file, and get large file handles to put on them, or make handles of your own from birch. Make these handles an inch or more in diameter. Ferrules may be made from brass wire wound tightly and soldered as you wind it. Drill through the ferrule and screw-driver shank for a small pin. These blades should be hardened by heating cherry red and plunging into cold water, then heating until the purple color verges into blue, and again quenching in water. The smaller blades should show more blue than purple, or they may break too easily.

You will need a good hack-saw, preferably one taking 12-inch blades, and a medium-sized cross-cut wood saw. A jack plane and a block plane will save time in dressing down thick stocks, or pieces glued on for remodeling a stock. A two-foot carpenter's square, and a combination square with adjustable head and 6- or 9-inch blade, will help in stock work. A 9-inch steel scale with No. 1 or No. 2 graduations is useful in setting scope blocks, as these gradu-

ations include tenths of an inch. Small pin vises of the type made by L. S. Starrett are very useful in filing pins to fit tightly in holes. The smallest-size pin vise when equipped with a steel phonograph needle makes the best scriber you ever used.

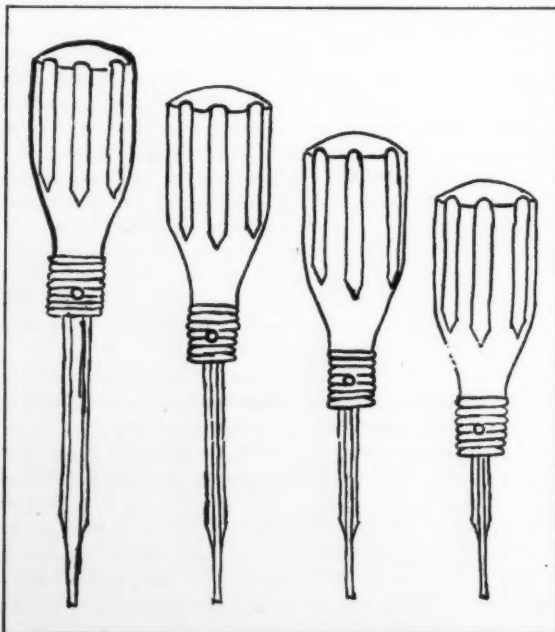
Inside and outside calipers and dividers will be needed in taking measurements of parts and laying out stock changes. The 10-cent-store type will answer the purpose, and for measuring screws and other small metal parts a micrometer caliper is handy. One firm makes a very fair one for \$1.75. Other tools needed for certain work will be mentioned as we go along.

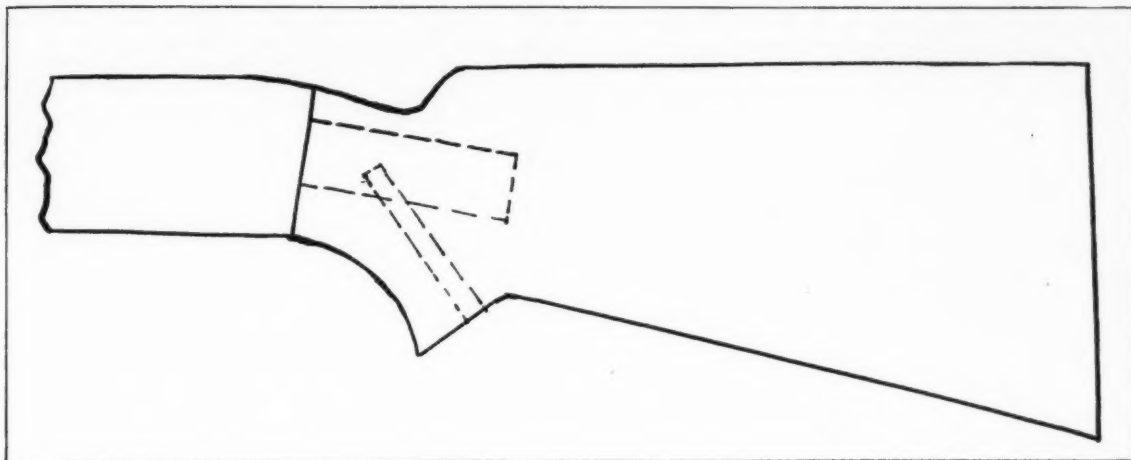
For an average example of remodelling work we shall take up the Model 1917 U. S. Army rifle, as this needs to have about everything done to it to make it into a presentable sporting rifle.

The first thing to do to the stock, after it has been taken from the barrel and action and stripped of its metal parts, is to cut off the forearm. If you are going to put a horn or bakelite tip on the forearm, cut the latter off just back of the lower band. In cutting it off, if you do not have a fine-toothed back-saw, use a hack-saw, as the average cross-cut saw will splinter the edges of the cut. After cutting off, square the end of the forearm with a fine file, using the combination square with adjustable head to make sure you get it square.

As we shall want to fit an inside band on the barrel, with the swivel running through the forearm, we had better fasten the forearm tip on with two $\frac{1}{4}$ -inch dowels, one on each side of the center; for if we use one central dowel the swivel screw will make a hole through it and weaken it. Make sure that the end of the horn or bakelite tip is square, and smooth it up with fine files and emery paper. Place the block of horn or bakelite against the end of the forearm, and draw the outline of the forearm, inside and outside, on it in pencil. Now mark on the smooth end of the tip the position of the two dowel holes, placing them so that the edge of each hole closest to the barrel channel clears the channel by at least $\frac{1}{8}$ -inch. Drill these holes into the tip to a depth of $\frac{1}{2}$ or $\frac{3}{4}$ -inch. Drill the holes first with a drill slightly smaller than $\frac{1}{4}$ -inch, and then run the $\frac{1}{4}$ -inch drill in, as the first hole might be slightly oversize, and you want the dowels to fit tightly. Mix up a little lampblack with oil, paint it thinly on the smooth end of the tip, and press the tip against the end of the forearm, lining it up by means of the penciled outline of the forearm. This will show the dowel holes outlined in black on the end of the forearm. Check these positions by measuring, and, carefully centering the holes, drill them an inch or more deep into the forearm. Clean off the lampblack from the end of the forearm by light scraping with a chisel or scraper, place the dowels in the holes in the tip, coat the tip lightly with lampblack, and press it into place against the forearm, seating it with taps from a mallet. A very good mallet to use for stock work is the rubber mallet sold by automobile supply companies. These are heavy, and a good blow can be struck with them without marring.

Now remove the forearm tip and see how even a contact it made on the end of the forearm. If the contact is uneven, scrape down the high spots, repeating the work until you have an even contact, or one that is slightly heavier toward the edges than at the center. Now clean off all lampblack,





and put duPont cement in the holes in the forearm tip and on the ends of the dowels that enter the tip. In the holes in the forearm and on the other ends of the dowels put casein glue, then coat the end of the forearm and the end of the tip with duPont cement, and put the tip in place, seating it tightly with taps from the mallet. Then put a clamp on it. This clamp can be made from a piece of $\frac{5}{8}$ -inch by $\frac{3}{4}$ -inch steel bent to a C shape, and long enough so that with one end hooked in the magazine mortise the other end clears the forearm tip by $\frac{1}{2}$ -inch. This outer end is drilled and tapped for a $\frac{1}{2}$ -inch set-screw, this screw being tightened against the end of the forearm tip. Leave the clamp in place for 48 hours.

While the forearm tip is setting we can turn our attention to the buttstock. The best method of dealing with it is to saw it off about $3\frac{1}{2}$ inches back of the end of the lower tang mortise, and cut a tenon on the stub of the grip at least 1 inch in diameter (preferably $1\frac{1}{8}$ -inches), starting at the rear end and running up so that it just cuts into the rear end of the lower tang mortise. A tenon-cutter (sometimes called a hollow auger) is the best tool for this job, and if you do not possess one, there may be a wagon repair shop nearby that will loan you one.

Now take a piece of walnut plank from 2 inches to $2\frac{1}{4}$ inches thick, 13 inches or more long, and 6 inches or more wide, and into one end bore a hole just large enough to make a tight fit with the tenon. This hole must be bored at a downward angle so that when the plank is placed on the tenon its top edge will be parallel (or very nearly so) to the top edge of the stock. If you are right-handed, bore this hole a little to the right of the center so as to leave plenty of room on the left side for a cheek piece. If you are left-handed, bore the hole a little to the left of the center. If you do not wish a cheek piece, bore it in the center.

Face off the end of this piece around the hole, using chisels and files, so that it has a perfect fit with the wood at the

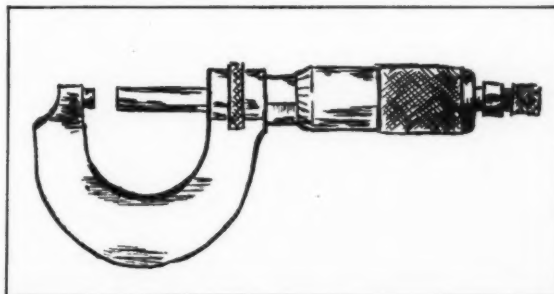
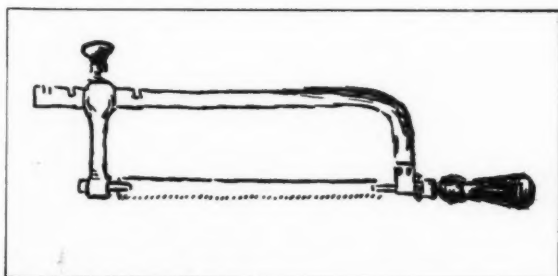
base of the tenon. In boring the hole in the end of the blank, start far enough down from the top so that you can get the proper height of comb. Before gluing this piece to the tenon, cut a small vee-shaped groove along the lower edge of the tenon, from the end back to the shoulder, and cut the groove on down the face of the shoulder. As this will come out in the trigger-guard mortise it will not show. The purpose of this groove is to allow the air to escape from the hole as you drive the buttstock piece onto the tenon.

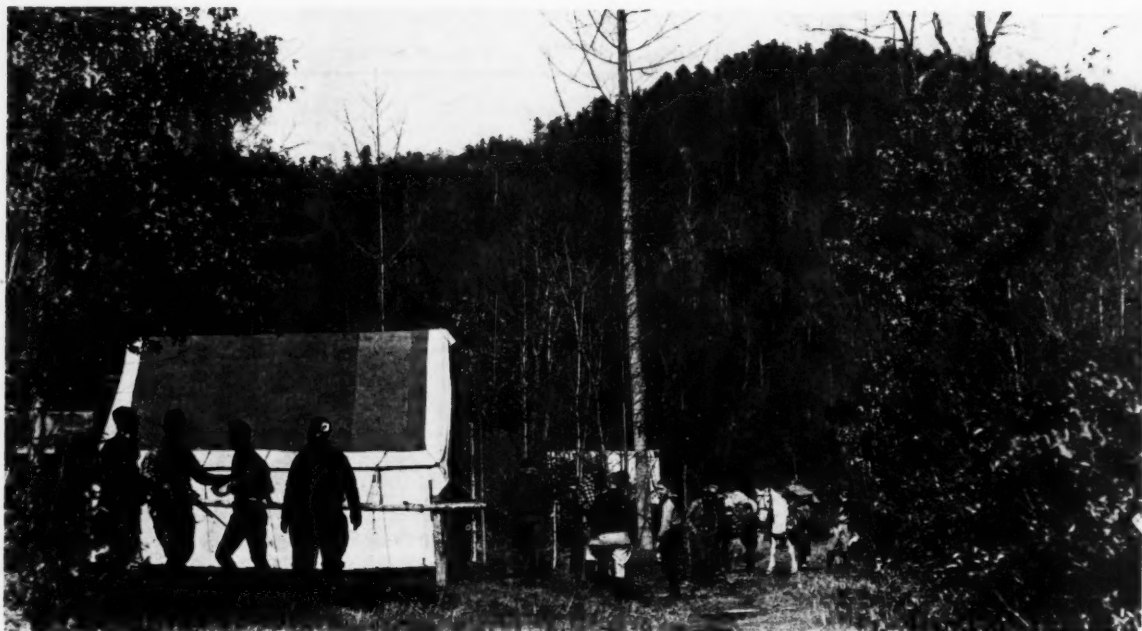
Coat the inside of the hole, the face around it, the tenon, and the tenon shoulder with casein glue, and, clamping the stock in the vise in soft jaws, drive the buttstock piece onto the tenon, using the rubber mallet.

After the piece is in place and properly lined up in a vertical plane with the rest of the stock, clamp it tightly for 48 hours, using a clamp like the one you used for the forearm tip, and hooking it into the rear of the magazine mortise. It will be best to put a piece of steel between the clamp screw and the butt, or the screw will sink into the wood. If you have been unable to get steel for these clamps, or unable to get the clamps made, the stock may be gripped in the bench vise, a block of wood nailed to the bench top the proper distance away, and wedges of wood driven in between the block and the end of the stock to force the parts tightly together. This will work as well for the forearm tip, too.

In the event that you cannot obtain the use of a tenon-cutter, the tenon can be cut by hand. First, with a sharp knife make a cut around the stub end of the grip where the shoulder of the tenon is to come, keeping the cut as straight as possible, although it can of course be straightened up after the tenon has been cut. After cutting this line around as deeply as you can, begin whittling the tenon out with a knife, deepening the shoulder cut as you work down to it. The tenon can be rounded up by using files and emery paper. And, I might add, I find that aloxite cloth cuts

(Continued on page 36)





Camp scene at the Big Creek Wilderness Camp, Pisgah National Forest

THE PISGAH HUNT

Photos by Clint Davis, U. S. Forest Service

THE BEAR and deer hunt held on the Pisgah National Forest under the sponsorship of the U. S. Forest Service is one of the most unique hunting events in the nation. 1600 hunters take part in this regulated Big Game Hunt during the four weeks in which it is held.

THE AMERICAN RIFLEMAN's Fred Ness and the writer were two of those fortunate individuals of the many applicants to get into this 100,000-acre game preserve and try our luck in the main hunt of the northern circle and also spend a day and night in the wilderness camp as observers of a most unusual event—the first "play by play" broadcast of a deer hunt from within the hunting area itself.

The main hunt of this Western North Carolina paradise is divided into two areas called the northern and the south-

ern shooting circles, opening in the southern circle the first week, going on to the northern circle the second week, and then repeating the areas the third and fourth week. This hunt is conducted in three-day periods, starting Monday and Thursdays in the area open, with about 150 hunters allowed in each group; a total of 1200 for the four weeks. The other 400 licensees join the wilderness hunt. In this, only men in good physical condition are allowed to go into the preserve to stay for three days, carrying their own camping equipment and paraphernalia, and hunting under rugged and primitive conditions.

(Continued on page 30)

Below: Left—Packers unloading radio equipment for transmitting first broadcast of a big-game hunt from actual scene of the event. Right—Announcer Bill Bivens and Ranger John Squires interview Dr. R. R. Reinhardt, of Lincolnton, N. C.





IMPROVING YOUR SCORE

By FRANK WYMAN

YEA, VERILY! A dyed-in-the-wool pistol shooter would gladly give Shylock a pound of flesh if he could thereby add points to his score. And this applies to the man who can hang up a snappy 200 over the three-stage course as well as to young Jack-in-the-Black who weeps salty tears every time his score tumbles gutterward below 280. Yes, and it also applies to the slow-fire man as well as to the fellow who must always shoot "over the course." We're all alike when it comes to bartering almost anything—save good sportsmanship—for the sake of one or two more points.

Now that everybody is hanging on the ropes, let's see if we can think of a few things the top-notchers do that aren't so regularly done by the boys farther down the bulletin. The shooter who is already scoring in that semi-select group from 265 to 270, must look for any additional points through close attention to all the small details of his own individual shooting. No one change can be expected to suddenly run a 265 average up to 275 or 280, but by watching what you do, as compared to what the man does who is averaging above 275, you can add a point to your average now and again. Check every small detail of your shooting, and don't be afraid to try a new idea just because it doesn't appeal to you when first explained.

The suggestions we are going to make are aimed at both the beginner and the "expert." The new shooter should make every effort to learn all angles of the game right from the beginning. To do so will eliminate numerous false starts and much lost time. As that sturdy oak of Sunday night entertainers, "Sliver" McCarthy, would put it, the beginner should prepare from the start to "Mow 'em down." The expert should remember that a "refresher course" comes in handy at times as a reminder for some forgotten small point of technique.

High-power rifle shooters keep careful record of each shot fired—weather conditions—wind—light—temperature—etc., each being marked down with meticulous care in a score book. Such elaborate "dope" is probably unnecessary for pistol shooters—our ranges are short, and wind affects the shooter more than it does the bullet on its way targetward; but you *should* keep a record of all practice and tournament scores. If you use more than one gun, keep a *complete* record on each of them.

Your record should show every score at each stage, together with the date fired and the ammunition used. This gives you an opportunity of not only knowing what ammunition gives you your best *average* score, but also of knowing at all times just where you are weakest. Figure your *average* score every three or four weeks, and then practice where your scores show you need it the most. Don't try to "kid" yourself by recording only your high scores. If you are serious about improving your shooting, the *low* scores should be recorded and studied more religiously than the high scores.

When the old-timers first began competing in matches over the National Match Course, they found that the skilled rapid-fire shooter almost invariably won. Thereby was born the saying, "the rapid-fire experts win the matches," and the equally hoary and long-whiskered one to the effect that, "it's the rapid that separates the men from the boys." This may have been true a few years ago when winning three-stage-course scores were lower than they are now, but I'm of the opinion that the wise shooter today is the one who realizes that he can pick up a few points on the other fellow at *slow-fire* if he'll practice diligently. Some night soon, when the range is closed and you're through dry-shooting, get out a batch of old bulletins, and check over the National Match Course events—any caliber. See for yourself how

many competitors in the 240 to 270 class are away down in their slow-fire scores. I know—50-yards slow-fire is hard, but a point gained is a point gained, and if your shooting averages from 91 to 95 rapid and only 80 points slow, it seems to me that some slow-fire practice is called for, right now. Remember 91 to 95 means you have only from 5 to 9 points that you can hope to pick up, whereas you are playing with a possible 20 points to be gained in the slow-fire stage.

If a further example is needed, look over a few recently established national records:

On July 16, 1938, M. R. Rogers of the U. S. Treasury Customs Border Patrol Team established what at that time was a new National Match Course center-fire record of 293, one point over the former mark. This one point was gained at slow-fire, where Rogers scored 95. In August during the Pre-Perry Tournament, Al Hemming set two phenomenal National Match Course records: 297 with the .22, and 298 with the center-fire arm. The three-point increase over the old .22-caliber record all came in the slow-fire stage, where Al dropped one point for a 99 x 100. A few minutes later he scored another 99 with his .38-Special revolver at slow-fire, which started him on the way to his second National Course record that day. When Marvin Driver's "Detroit Record Crushers" set a new four-man-team record for the National Course with .22's at Detroit in June, they upped the old mark nine points, and gained six of them at slow-fire. Slow-fire at 25 yards is sometimes looked upon with disdain, but when Walter Walsh raised the Camp Perry Course center-fire records 2 points at 298 at Camp Ritchie in July, 1938, he added both points at slow-fire, where he scored a "possible." There have been, of course, other new records in which the necessary points were gained at other than slow-fire, but the three mentioned are important ones, and well illustrate the point.

All right—let's suppose you are averaging from 80 to 85 at 50 yards, and would just as soon boost that a few points, here are a few suggestions:

The matter of special stocks is one that is receiving a lot of attention—and rightly so. No shooter can do his best with a gun that doesn't fit him. A handgun to be used over the three-stage course of fire requires a different stock from that of a strictly slow-fire gun; therefore, be conservative in your remodeling of stocks—particularly in respect to revolvers. Don't equip your three-stage gun with too large a stock. See that the stock does not crowd your hand uncomfortably. Finger grooves are all right, if properly spaced, but the spacing of them to fit *your* hand is very important.

You may think you are taking the best possible stance, and holding the gun so that everything is just right, but—do your shots have a tendency to go in any one direction? You "call" where they *are* all right, but they almost invariably go out in the same direction! If this is the case, and your shots hanker to go right or left, it may be either foot position or grip that is at fault. If they vary high or low at 2, 5, or 10 o'clock, it is probably the fault of a grip that is out of kilter. The way to check up is this:

Fire a couple of shots—slow, of course, using your usual stance and grip. After the last shot is fired, take your usual rest period, and then extend the gun to your normal aiming position *while you are looking in some direction away from the target*. After the arm has been fully extended, look at the sights (never mind whether or not either the front or rear sight is pointing at the bullseye), and see if *front and rear sights are aligned* properly. If the *front* sight is not correctly positioned in the *rear* sight, your grip is wrong and some of your hits out in the white

can be attributed to the slight tension you have been, perhaps unconsciously, exerting on wrist muscles to *align* the sights. Shift the gun in your hand until, when you make this test, the sights are close to being perfectly aligned without any wrist movement at all.

Now let's check up on your stance, so far as facing the target is concerned. Take your usual position, and again fire two or three preliminary shots; then proceed as you did when checking up on your grip. Extend the gun to arm's length toward the target while you look away. With the arm fully extended, look over the sights and see if the gun is pointed right or left of the bullseye. If the gun is not pointing correctly close to the bullseye, change your stance to bring the gun to bear properly, and thus save the muscular effort necessary to swing the arm over to align the gun on the bullseye.

The reason you must have a grip that requires no tension in the wrist muscles to align front and rear sights, and a foot position that requires no tension in the shoulder muscles to align gun and bullseye, is that after you completely relax all muscles preparatory to letting off a shot, the natural thing is for your wrist and arm to assume their normal position, so you have to keep fighting this tendency all through the aiming time. If your mind is successful in this effort, the result is a good hit; but if your muscles win, as they frequently do, you get one of those so-called "flyers," which aren't that at all.

On a windy day, out of doors, the correct foot stance is different than when shooting on a calm day or in a gallery. In a wind that is blowing across the range, face your target more fully than you do for gallery shooting, and if the wind is very strong, spread your feet farther apart than usual. Either or both of these changes will brace your body against the tendency to sway in a cross wind. By the same token, you can brace yourself against a six or twelve-o'clock wind by facing at a greater angle away from the target.

Speaking of shooting in the wind, it is strange how many competitors never learn to shoot slow-fire on a windy, gusty range. If your relay catches a gusty, puffy time, don't stand with arm extended, cussing and fighting the wind. Instead, rest yourself during the gust, and when you feel the wind begin to die down, get ready to shoot—and *fire as many shots as you can* during the lull. Your scores under such a system will not be as good as you can do slow-fire under *good* conditions, but you can be sure they will be better than if you attempt the usual procedure of a rest after each shot, and then have to fire part of the string, wind or no wind, to finish in time. I saw a shooter at one of the eastern matches fire a 95 at 50 yards slow-fire using this system during a wind that at times must have reached a velocity of 40 miles an hour. He shot during lulls, and needless to say, his 95 was high by a good many points.

The above check-up for foot position is commonly used by riflemen, but is not used nearly as often as it should be by pistolmen. Another practice of rifle shooters when firing offhand might very well be adopted by more pistolers, and that is to take a camp stool to the firing line, and sit down between shots at slow-fire and between stages of timed and rapid. Such a rest *may* give you an added point, and one point has many times been all that was needed to win an important event.

If your arm begins to tire, don't under any circumstances continue to aim, thinking that you will get the shot off properly anyway. If you do fire under these circumstances, nine chances out of ten you'll jerk in spite of all you can do to avoid it. Take the gun down, and start all over again after you have taken a little rest.

(To be concluded)

GUNSMITHS

By E. A. DAUBENSPECK

I AM NOT WRITING this in the spirit of reprisal, and I have no axe to grind; in fact, nothing appears to justify this article except the experience I had while rebuilding one of the 1917 Enfield rifles. Let it be understood before going further that without the help of gunsmiths I would not now have a very beautiful rifle, yet in a sense the result might be said to have been accomplished in spite of gunsmiths. The difficulties I encountered were so many and unexpected that I feel they might prove interesting to anyone contemplating remodeling a rifle.

In accomplishing the more than gratifying result, I found it necessary to call to my assistance several gunsmiths and other experts. Much to the relief of the reader (I suspect), I am not enclosing the four conventional photographs portraying "the most beautiful rifle." Nor do I feel qualified to discuss the many technical phases of this or that feature which I have incorporated in my rifle. By eliminating technicalities and photographs we have only gunsmiths and other experts to work on. We can dispense with the "other experts" simply by stating that they are the so-and-so's who drop in from time to time to inspect your gun, and, noticing any progress, depart after giving you a lot of suggestions as to how you should have done it. In all fairness to those whose intentions were good, I will admit that their suggestions were usually good, too. And now that we have it boiled down to the one word "gunsmiths" as a famous politician once said, "let's get at it."

To give some idea of the extent to which I went to get what I wanted, I will begin by enumerating the trips my gun has made.

Winchester-made, I got it from the Rock Island Arsenal. Its next trip was to a prominent gunsmith in California, who returned it to Montana. In a week or two it again entered the mails, to be whisked to an equally prominent Pennsylvania gunsmith, for more work. Back it came, and finally its journeys were concluded when the bolt and trigger mechanism made a round trip to Wisconsin. You wonder why all the shipping around? Gunsmiths is the answer.

As a young man I grew to feel that a halo of gun lore and exactness hung over the grizzled heads of those venerable patriarchs known as gunsmiths. In my opinion they were craftsmen who put factory precision to shame with their marvelous creations. Men to whose door the world beat a magic path over which no one dared tread who had not money in sufficiently large amounts to pay well for the masterpieces they fashioned. Men who made gun parts fit like those of a fine watch. Needless to say I did not rate tinkers in that manner, but before those who designated themselves "Expert Gunsmiths," I stood in absolute awe.

I do not think it fair to those who worked on my gun to mention their names here. They were, however, men to whose names was attached the title "Expert Gunsmiths." They have also been consistent advertisers in THE AMERICAN RIFLEMAN. I refrain from giving their names because my experience may have been an exception; also for the reason that I am quite hard to please in such matters—probably too hard. At any rate, the general criticism which follows is given without hesitation; and, while it may seem unreasonable that anyone could have had so much difficulty with only one gun, yet such is the case.

I stripped off the Army stock and threw it away, sawed the tang off the front guard and had it welded back on without offset, filed and sawed off the rear sight and the clip lugs. After polishing the barrel and milling by hand the several places I wanted changed, I sent the gun, minus the stock, to California to be blued, machined, and have a new stock fitted. The stock was to be inletted and the barrel bedded-in, leaving the external shaping to me. Since I had had previous difficulty using peep sights, I wanted a suitable rear sight mount attached so I could fall back on an open sight if necessary. I had also cut the "ears" from the issue front sight, and asked to have a blade fitted. These directions, together with instructions to cut the magazine down to a capacity of five cartridges, were sent to an expert gunsmith. Unlike the instructions we sometimes hear about as being scribbled on much-folded pink paper, mine were typewritten.

Glancing back over the instructions, I see nothing difficult for an expert gunsmith to do, but, after considerable time had elapsed I got the gun back, and here is what I found: The front sight was all right. The rear sight mount was a peculiar creation such as a cubist might have designed, and as it looked out of place on an otherwise graceful barrel, I sweated it off. This of course ruined the bluing job on the barrel. The milling was so rough in places that the tool marks were easily discernible through the blue. The magazine was cut lower on one side than on the other. Some small parts had been deemed blue enough, and had not been re-blued; others were not blued evenly, especially in corners and grooves. Lastly, the stock, an excellent stick, was so poorly inletted and fitted that an object the size of a dime could have reposed comfortably in many places between wood and metal.

For weeks my fingers had been itching to get that gun and satisfy a longing to make it into the perfect rifle. I waded mud and snow to reach the post office in the hope that it might be there. I lacked the machinery and bluing equipment with which to do much of the work, but boy, how I could fix that stock! But when I saw what I have mentioned, I examined it carefully and then sought out the advertisement that had induced me to send the gun to California.

Sure enough, there it was: "Expert Gunsmith." How could I have gone wrong? My next impulse was to crash the whole thing into a nearby lake, so I started out with it. However, remembering my almost fiendish desire to overhaul one of these rifles, I didn't have the heart to junk it. I sat down and told the whole story to the gentleman who had done the work, and I must have poured into the letter some of the pathos of the situation, for return mail brought his check for the full amount I had paid him, with instructions to send the stock back collect. He was so absolutely sincere in his statements, and fair in his dealing, that I prepaid the stock back to him and refunded an amount sufficient to cover the work I found acceptable. All this left me no malice for the gunsmith, but it certainly wasn't improving my rifle.

I figured that if an expert couldn't do any better than that, I would order a circassian walnut stock, and fit it myself. I had never seen circassian except in the beautiful panels in beds and other furniture, and I envisioned a

(Continued on page 35)

THIS MATTER OF CANT

By WALTER F. ROPER

ONE OF THE THINGS I remember particularly about my early attempts to learn to shoot a pistol is the statement of the noted coach under whom I was struggling, that I must cure myself of a tendency to cant my pistol just a little bit to the left. In fact, he told me in no uncertain words that I never would shoot a decent score—simply couldn't—as long as I let the gun lay over that way.

Pressed for information about the awful effects of my malady, he showed me a picture in a booklet on shooting (Figure 1) that indicated that just a wee little cant would put the shot way out in the white and way low—even if the hold was otherwise perfect. Later I measured the amount of cant indicated in that picture and found that it was about the same as my own—just a little less than 11 degrees.

I did my best to cure myself of canting. I spent hours at "dry" practice, but it didn't do any good; that pistol would assume its cant to the left during my "hold" every time I shot, and the funny thing about it was that the front sight looked perfectly vertical to my eyes until I stopped looking at the sights and focused my eyes on my hand! One day, however, while trying another shooter's gun which did not have the sights adjusted to correct for my cant as mine were supposed to be, I suddenly realized that I wasn't getting any of those terrible white shots as shown in the book!

Right then I quit worrying about cant, and for some fifteen years I managed to score the usual ninety-something-or-other of the average dub pistol shot fairly regularly. Probably I would never have given canting another thought if I hadn't run across my old coach a few months

since. Darned if he didn't refer to my involuntary canting habit, adding that if I hadn't had that trouble I might have become quite a fair shot with a pistol! Right then I made up my mind to do a bit of belated investigating and find out just how much "cant" actually does affect one's shooting with a pistol.

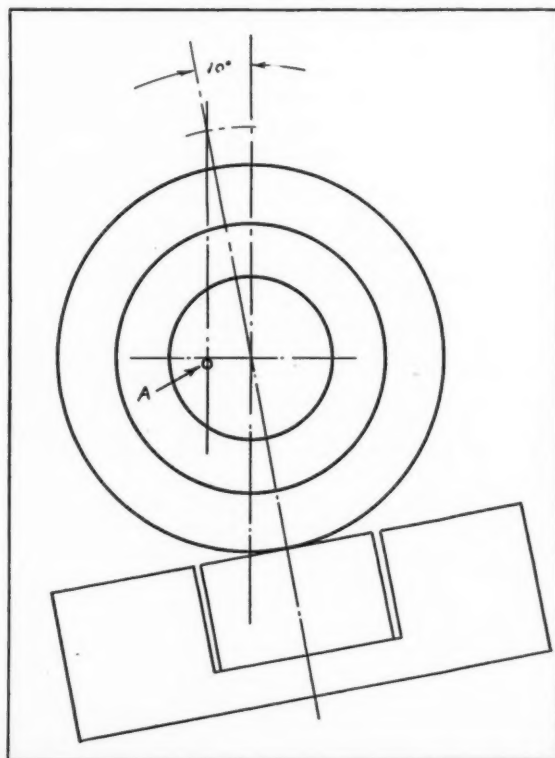
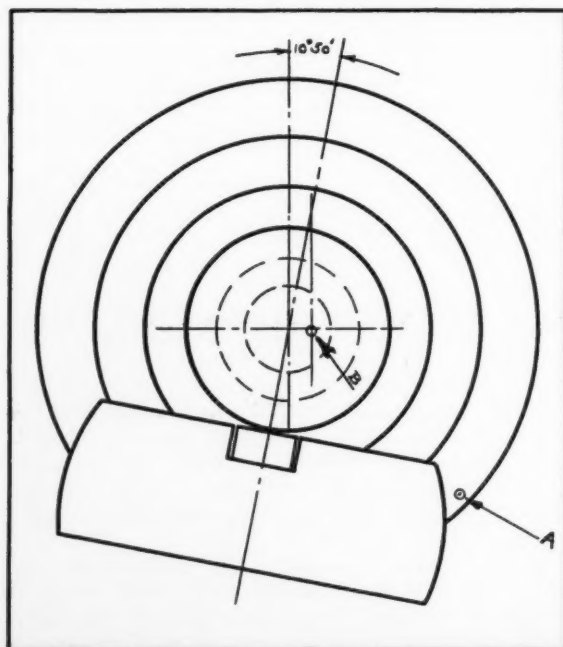
It's funny how things that are not true continue to be believed. Reminds me of what an old friend told a very wise chap one day who gave a most ridiculous explanation of a problem. In a most disgusted tone my friend said, "Bill, it sure does beat hell how many things you know that aren't so!" Well, even before I had a chance to go to the range and test out the canting business by actually shooting, I found by some very simple figuring that even at 50 yards the cant bogey is mighty close to 100% bunk, doesn't amount to enough to even consider, and cannot possibly cause the shot to go where it was shown in the picture.

Maybe it's a shame to eliminate canting from the list of good alibis, but I'm more interested in showing shooters who have the "fault" that they need not worry about it, than I am in preserving a worn-out baseless alibi. So let's start by putting down why canting has any effect at all upon where the bullet strikes. The reason is that every bullet "drops"—is pulled toward the earth—as it travels from the gun to the target. It begins to drop the instant it leaves the muzzle, and continues to drop just as long as it is in flight.

Because of this drop, the barrel must be pointing above

Fig. 2—The way sights actually stand in relation to 50-yd. bullseye when shooter cants 10° because of eye fault. To him sights look horizontal. If gun is a .22 and range 50 yds., the point of impact will be at A

Fig. 1—The picture shown in the book. With cant shown, which measures 10°-50', book says shot will strike at A. Assuming this is a 50-yd. target, the gun a .22, and range 50 yds., shot will actually strike at B. Dotted lines indicate 9 and 10-rings

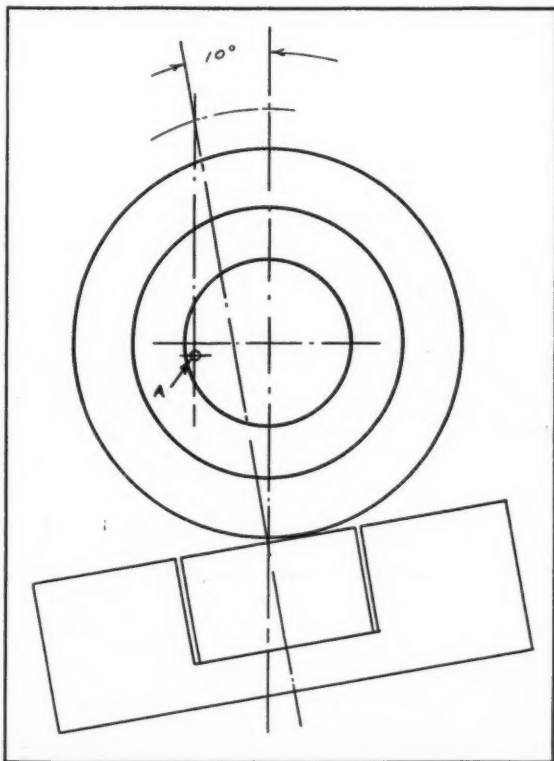


the spot we wish to hit when the bullet leaves the muzzle, and it must be pointing at a spot as much above the desired point of impact as the bullet drops in the time it takes to travel the distance to the target. If we hold the gun vertically and the sights are set properly for the distance we are shooting, the bullet starts off toward a point directly above the center of the bull, and travels in a curve as gravity pulls it downward, so that when it reaches the target it will be at just the right height to go smack through the center of the ten-ring.

There are two kinds of canting. One kind is caused by an eye condition that makes a slanting line look vertical, and the second kind is caused by a tight feeling in the arm when the hand is held so that the sights are plumb vertical. The shooter who cants because of the eye fault holds as shown in Figure 2, while the canter whose arm is more relaxed when twisted a little to the right or left will hold his sights as shown in Figure 3. We'll dig into both types of canting, and see just what effect they will have upon where the bullet strikes.

Let's suppose, first, that one has a kind of eye that makes a vertical line look slanting, and that you cant your pistol over to the left while aiming. That will make the six o'clock point appear to be over to the right a little from its true position. This, however, doesn't change the position of the sights in relation to the bore of the gun. It simply tips the plane through them over to the left, and the bullet will travel to the target in the inclined plane, the extension of the center line of the bore—or more correctly the "line of departure"—cutting the target not over the center of the bullseye, but to the left of it. Gravity, however, doesn't pull off at an angle—it pulls vertically always, so that in-

Fig. 3—The way sights stand in relation to bullseye when shooter cants gun to make his arm more comfortable. Note sights are centered on 6-o'clock point of bull. With this type of cant a .22 at 50 yds. will strike at A



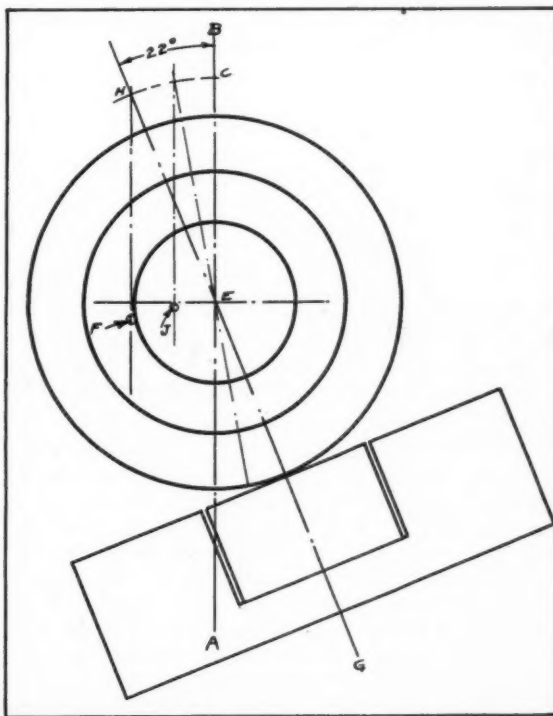
stead of falling downward in the plane through the bore and the sights as it did when the gun was held vertically, the bullet falls off to the left of this plane when the gun is canted to the left. That is what happens when the gun is canted because of an eye fault and what we want to know is: HOW MUCH lower, and how much to the side, will the bullet strike than it does when the gun is held vertically.

The answers to both of these questions depend upon how much the bullet drops in the distance being shot, and it is because the bullet drops only a small amount in even the maximum regulation pistol range, that cant doesn't cut any ice at all in target pistol shooting. Both the horizontal and vertical displacement due to cant can be figured by very simple formulae of trigonometry, and I'll give them in a moment; but let's do it graphically first, without any formula at all. Let's assume that we are shooting a .22 caliber pistol at 50 yards on the standard target, which has a ten-ring 3.39" in diameter. Let's see how much cant we can have and still have the shot cut the ten-ring.

By a most interesting method, which I hope to describe some day, I find that the .22 long rifle bullet (not high-speed) drops $4\frac{3}{4}$ " in going 50 yards. With a pistol, we usually sight at the bottom edge of the bull, so in order that the bullet may strike in the center of the ten-ring when it drops $4\frac{3}{4}$ ", we set our sights so that the line of departure of the bullet will cut the target $\frac{3}{4}$ " above the top of the 8" bull. Then when the bullet drops $4\frac{3}{4}$ " it will land in a most pleasing manner right on the "pimple."

Now look at Figure 4. Line A-B represents a plane that passes through the center of the bore and the sights when the gun is held vertically. Point C is where the line of departure cuts the target. Point E is $4\frac{3}{4}$ " below C, and C-E is the drop of the bullet. That is the way things are

Fig. 4—Maximum amount of cant that will make 10's when shooting a .22 pistol at 50 yds.—22°. All drawings except Fig. 1 represent 8" 50-yd. bull, and sights as they appear in proportion to it. Point J is where shot would strike if gun were canted 10°



when the gun is held vertically. Now suppose we commit the horrible error of canting (due to an eye fault), even as much as is indicated by the line G-H; and boy, that 22 degrees is an honest-to-gosh cant, I mean! Point H is the same distance from what looks like the 6 o'clock point to us as point C is from the real 6 o'clock point. The bullet, pulled down by gravity, drops straight down on the line H-F—but look where it hits!

Remember, the drop is just the same as when the gun is held vertically, so the distance H-F is the same as C-E; but even with that rather ridiculous cant (22 degrees) the bullet still cuts the ten-ring very nicely. Maybe a little too near the edge to be perfectly satisfactory, but it's all the same on the scoreboard.

That surely is quite a little different from the result shown in the picture reproduced in Figure 1. In fact, to get the bullet to strike where it is shown there, with a cant of the 10 degrees shown, the bullet would have to have a drop of 33" in going 50 yards, and that would mean that it had a velocity of 100 feet per second! That brings it

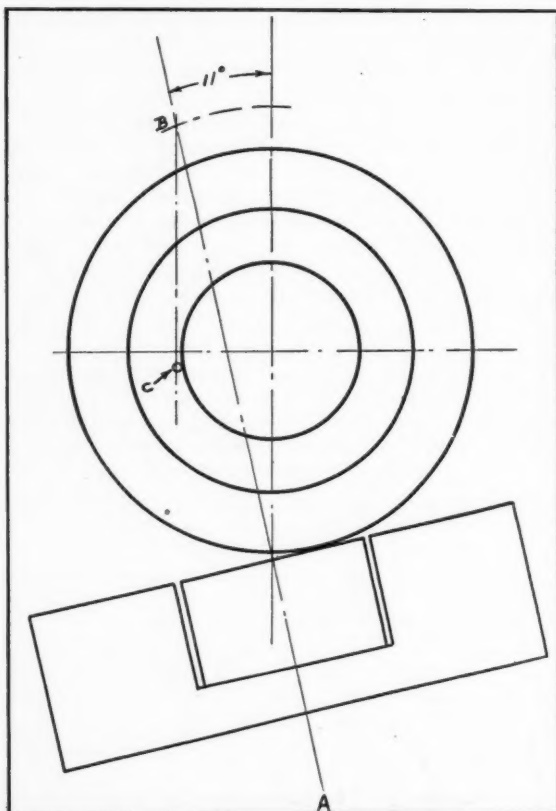


Fig. 5—Deliberate canting. 11° is maximum a .22 can be thus canted and still score 10's at 50 yds. Note center of sights is at 6-o'clock point. Few shooters have this habit

down to a case of "reductio ad absurdum" as our old school books used to put it, and the best thing to do is to throw the whole thing out. The fact is that you don't need to worry at all about any cant you may happen to develop because of your eyes, even when shooting at 50 yards—at least not on the Standard American Target. If you go in for free pistol shooting on the 2" ten-ring International Target you'll have to adjust your sights to offset the effect of your cant, and keep the cant the same for each shot.

Canting due to an eye fault comes down to this: It affects the point of impact of your bullet in proportion to the

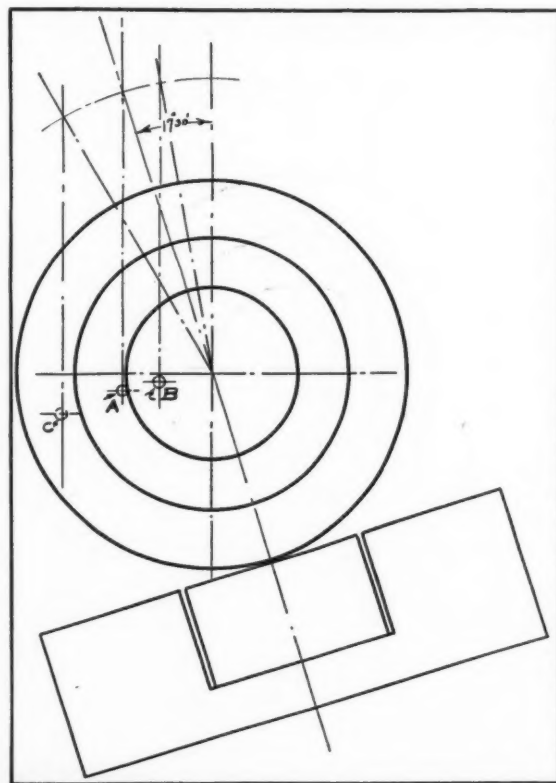
amount the bullet drops in going the distance to the target. The drop is small at pistol ranges. The amount it will be displaced horizontally is the drop in inches times the SINE of the angle of cant. The amount the bullet will strike below the point it strikes when the gun is held plumb is equal to the drop in inches minus the drop times the cosine of the angle of cant. With the .22 LR bullet, which drops $4\frac{3}{4}$ " in 50 yards, the horizontal displacement due to an angle of cant of 10 degrees is $4\frac{3}{4} \times .177$, which amounts to .84". See point "J" Figure 4. For a trick cant of 30 degrees the horizontal displacement will be $4\frac{3}{4} \times .5$, which amounts to 2 $\frac{3}{8}$ " sidewise from the point the bullet would have hit had you held the gun on an even keel.

Holding as one does who has the eye fault, the vertical effect of canting the gun is even less than the horizontal effect. At 50 yards a cant of 10 degrees will make the .22 LR bullet strike only .07" below the spot it would hit if the pistol were held plumb. A 30-degree cant will make the bullet strike .64" low. If you roll your gun over more than that you are doing trick shooting, and I'm not interested.

Things are a little different if you cant in order to make your arm feel comfortable, for then you probably hold your gun with the sights as drawn in Figure 5, and canting the pistol when the front sight is held under the true 6 o'clock point of the butt makes the plane through the sights and bore assume the position illustrated by line AB in Figure 5, B being the point at which the line of departure of the bullet will cut the target at 50 yards. The bullet will drop $4\frac{3}{4}$ " straight down just as it did in Figure 4, but in this case a certain amount of cant will cause more lateral dis-

(Continued on page 36)

Fig. 6—How canting a .38 affects point of impact. "A" shows shot just cutting 10-ring of 50-yd. target. Assuming range is 50 yds., angle of cant for A is 17° 30'. "B" is where shot will strike if gun is canted 10°. "C" is where shot will strike if gun is canted 30°



MR. AVERAGE SHOOTER

By H. V. STENT

IT IS SAID to be wise, in writing a short story, to start with something sensational to catch the reader's interest, like: "'Hell!' said the Duchess, who up to this time had taken no part in the conversation."

As the same may apply to writing articles for sporting magazines, I'm going to throw discretion to the winds and start off with that very risky thing, a strong statement—The conclusion forced upon me by some twenty years of reading sporting magazines, is that very few articles on rifles, their equipment, and use, are of much practical value to the great majority of magazine readers and rifle users generally.

In other words, the greater part of the rifle dope we read is written for a distinct minority: target-shooters, hand-loaders, and experienced, skillful marksmen; and hardly any of it for the ordinary man, who is the biggest customer for both guns and magazines. A small group of expert riflemen-writers sets the style in shooting articles, and through the latter exercises considerable influence on the products of all our arms and ammunition manufacturers, yet these gentlemen write nearly altogether from the point of view of the man who is, first and mainly, a target shot.

Not that I blame them, or the editors of the magazines who print their articles. It is not easy to see other points of view than one's own, and it must be hard for a man of skill, experience, and vast technical knowledge, to bring himself down to the level of ordinary laymen. Furthermore, the ordinary man has neither writing skill nor extensive information on the subject of guns. About the only time he ever expresses his views to an editor is when he is stirred to the depths by anger, and the resulting product is not apt to be fine literature. So the most—and best—articles are bound to come from the expert riflemen-writers, and naturally the editors publish them.

But do these articles represent the views of Mr. John Q. Average Shooter? Just sit back and shut your eyes, and picture him as you know him. To me, the average shooter is a man who works for a living. He hasn't a large income or much spare time, and he likely has a home, a wife, and a family, and a car to keep up—or acquire. Also, both his income and his time have many demands made upon them.

He shoots for pleasure and enjoyment. He can't afford to spend much money on it, nor is it convenient for him to give it a great deal of time. Big-game hunts do not come every year, and require a lot of saving and arranging. He does a bit of bird shooting, perhaps an occasional round of skeet or traps, likes a stroll out in the spring or summer with a .22—and not much more. He can't afford to buy many rifles or many boxes of shells—individually. Collectively, he buys the majority of all that are sold.

Because shooting for him is just recreation, he likes to take it easy. Thus he does most of his shooting from the offhand position, mainly because he is usually standing on his hind legs when he sees something, and that seems the natural way to shoot. If he were in the habit of travelling around on the seat of his pants or the front of his shirt, the sitting or prone position would be the natural one for him; but men don't move around that way under their own power—at least not in this neck of the woods. Another characteristic of the average man is that he prefers

to shoot at live game, or at bottles, cans, chunks of wood or earth—something that shows results when he hits it. A tacked-up target is not a very interesting thing by comparison; and to go to the trouble of lying down full-length in the dirt, fussing around with a sling and a just-so position, concentrating all his nerves and muscles for a shot, and then doing it nine times more, is just plain foolishness to him.

Furthermore, it is expensive, and to do it regularly makes a considerable demand upon his time. So the ordinary man isn't likely to be a target-shooter, nor will target cranks easily make him one. Modern psychology tells us that man, in everything he does, tends to follow the line of least resistance; and you might think that over a bit before trying to preach the ordinary man into spending his few shells the hard way, in dull, uninteresting practice from a comparatively uncomfortable position.

If my analysis is correct, our ordinary man is bound to consider cost and convenience very much in his arms and equipment; to be interested mostly in hunting, and to be a mediocre marksman. And there are many facts to back up these assumptions: the great popularity of cheap .22-caliber rifles, for example; the wide use of the lowly .22 short, recently stated by one writer as comprising about 50% of all rim-fire ammunition sold; the popularity of lever- and slide-action guns, especially the new .348 Winchester; though all these items are despised by target shooters, and are subject to ridicule in our magazines. A few years ago Colonel Whelen wrote me that out of 1903 letters of inquiry about rifles and pistols which he received in the last half of 1932, 1182 were about hunting rifles for small game and deer, 246 about all-around big-game rifles, and just 204 about target rifles—rim-fire and center-fire together. So is my picture of the average rifle-user so far from the truth?

And if it is true, shouldn't we consider the average man's needs and desires rather than try to force him to use the equipment of the richer, more skillful marksmen who do most of their shooting at targets? Surely it's better to give the shooters what they want, and have pleased customers, than try to coax them to take what they don't want—and have a lot of half-dazed suckers wondering what they got the darned thing for anyway when it doesn't give them the pleasure and use that their own choice would have.

For a beginning, we could cut out all this propaganda about the importance of the prone position. The ordinary man doesn't like it, and it is not a practical hunting position. It can't be used in wooded country, where most hunting is done; and even in open and mountain country it is surprising how often something sticks up high enough to shut off your view when you try to shoot lying down.

And what's wrong with shooting offhand, anyway, if your legs are stronger than your stomach? Isn't good shooting from offhand just as creditable as good shooting from any other position? Groups are larger offhand, of course, but big game is a big mark, and ranges are usually short. And offhand is the position that gets the use. Let's quit raving about 2-inch groups prone at 100 yards, and talk about 6-inch groups offhand at the same distance. Anything our experts can find out to help shooting in the offhand position will be of use to the aver-

age man, and if we encourage him to do what little practicing he does in that position, it will do him a lot more good.

Rifle stocks should be designed with consideration for offhand shooting, too. Straight stocks and flat buttplates are really prone-target-shooting ideas: for offhand work we want nearer 3 inches than 2 inches drop at the heel, and a gently curved buttplate, somewhere between the old deeply curved Winchester and the present flat style.

Also, the idea of having all rifle stocks checkered, and shooting gun-slugs fitted, is not so hot for the average man. He rarely has use for a sling, checkering has more artistic and imaginative value than practical worth, and both raise the cost several dollars. I believe all rifles should be available with plain unchecked stocks and simple carrying gun-slugs as options at a lower price. High combs and light trigger-pulls are worth a bit extra to most anyone, I think, but these other things are not nearly so valuable.

Now, the matter of actions. I realize, with a sinking heart, that to say anything against bolt-actions is to be classed at once by some as an ignorant backwoods so-and-so. But nasty names don't win debates, and fools rush in where angels fear to tread; and so I adjust my parachute, and begin. It seems to me that the feature which the average shooter appreciates most in a gun is convenience. For that matter, we all do; and I suspect it's because the bolt-action is a convenient action to use prone, and to clean, that those who do much target shooting prefer it. To many, too, it is convenient because they got used to it in the army.

But for the average shooter, who isn't drilled in the use of army rifles, or much interested in prone work, the convenient action is the one he can work most readily and easily offhand, kneeling, and sitting. And most unprejudiced observers will agree, I think, that the most convenient gun is the automatic or self-loader, followed next in order by the pump, then the lever, with the ordinary turn-bolt action last. It is because of this handiness of operation that the ordinary man likes the first three actions, not because of their speed. Speed is merely a proof of their handiness. The fact that 5 shots can be fired in less than 2 seconds from a lever-action, all to hit a foot square at short range; that 10 shots a second have been rattled off from a pump-action .22, doesn't mean that the average man will ever shoot them that fast; but it does mean that when he wants to pump a hurried second shot into the chamber under excitement, he can do it smoothly and easily without disturbing his view of the game. And that is worth a great deal.

It is worthy of note, also, that an action with a slim steel breech is more comfortable to carry around in your hand all day than is a bolt gun.

"But what about accuracy?" bursts out some fuming bolt-action brother. All right, what about it? First, how much accuracy can the average man use? It is my belief that the majority of rifle users, if plunked down 100 yards from a nice black-and-white target in the best prone position, with super-accurate rifle and sights, and all conditions favorable, would do well to average 3-inch ten-shot groups; and they'd hardly do as well in proportion at longer ranges. They wouldn't do any better, because the fine arts of holding steadily, aiming correctly, and squeezing off the shot with just the right coordination of eye and trigger finger, are not in their repertoires.

Yes, I know they could learn them by practice; but are they going to practice? Tell John Q. that he ought to practice more prone, and he might—thinking how almost all his shooting is done offhand, how different game shoot-

ing is from target shooting, and how the vital area on a deer is something like a foot square—he *might* look you coldly in the eye, and ask: "What the hell for?" And what would you reply?

Three-inch groups at 100 yards, then, and proportionate grouping at longer ranges, is all the average man will ever need in a rifle; and it's a question whether any of us has much need for more in a big-game gun. And any of our American rifles will, I believe, give that accuracy. I know that some of them have been shown in tests to be shockingly inaccurate, but—well, there are tests and tests. Thus the .30-30 Winchester was said to be horribly inaccurate, but when shot by Charles Askins, Sr. it repeatedly gave 100-yard groups of around 2 inches. Having heard of similar results, I believe that a thorough test of our automatic, pump, and lever rifles—under fair conditions, and carried out by a man with no preconceived prejudices against them, would show much better accuracy than we are usually led to believe, and would be of great service to the whole shooting fraternity.

As for the reliability, strength, etc., of these actions, they have been used too much by guides, woodsmen, and hunters generally—men who depend upon their rifles for their meat and sometimes for their lives, and who give guns the hardest kind of use—to leave any question in unbiased minds. When I hear some brother ranting about the inaccuracy, unreliability, etc., of pump and lever-actions (which he probably has hardly ever used), I think of a sentence in a letter from Leslie Simpson. This hunter of world-wide experience has killed, not the sixty-odd head of game which our most fortunate American shooters can boast, but thousands; and he wore out the barrels of several lever-action Winchester .40's and .30-'06's. Frequently with these lever guns he shot game at 400 yards, and some years after swinging over to bolt guns, he could still write: "I think it (the lever-action) sufficiently accurate for game-shooting in Africa, and found it reliable in action always."

In the light of this, any talk of lever-actions being inaccurate or unreliable smacks strongly of prejudice; and I believe that goes pretty well for pumps and automatics also. They are, I fancy, a trifle less positive in action than the Winchester lever-action, but the differences are very slight.

I consider that any of these actions is well suited to hunting use for anyone who is willing to give it a fair trial, and better for the average shooter than a bolt. I have nothing against the bolt-actions, mind you, and for anyone who wants to use them, they will give excellent satisfaction. I am considering what actions best suit—not you or me—but the ordinary shooter; and in view of the conclusions drawn, I maintain that we should be told much more about the good points of lever, pump, and automatic actions, and how to use them, with less exaggerated bunkum about them than we at present receive.

Now as to calibers. In a .22—the cheap little gun that gets more use than any other—the ordinary man wants, not a target gun, but something with which to shoot at squirrels, sparrows, gophers, etc.; also bottles, tin cans, chunks of dirt and wood—mostly from standing position and at short range (I'd guess from 3 feet to 35 yards). A single-shot .22 does him as well as any other, and is cheaper. A pump, if he can afford it, will likely best suit the ordinary man in repeaters. And the cartridge need not be the target-shooter's pet long rifle. For the ordinary man's uses and ranges, the short—especially in high-speed—is powerful enough. Why, therefore, John Q. should be urged to spend 64 cents for 100 long rifles when he can get 150 shorts for 57 cents, is another of those deep mysteries.

If his .22 shooting includes larger birds, rabbits, etc.—

larger marks which take more killing and can be shot at longer range—the use of long rifles and shorts interchangeably seems to be the solution; although the longer babies may stick a bit in the chamber after using the little pups. If the shooter is interested enough in this larger small game to use one cartridge especially for it in cheap rim-fire, he'll be well advised to skip the long rifle and take the .22 W. R. F.—with 20% more zoop and noticeably greater killing-power. It is available in some of our cheapest .22 rifles as well as fine pump repeaters by Winchester and Remington, costs about one cent per shot, and deserves a lot more publicity than it gets.

For the man that wants more power than this, the .22 Hornet is a splendid cartridge. It costs over 3 cents a shot, and I sometimes wonder if the old .25 Stevens rim-fire—with its 67-grain bullet speeded up to 1400 f.s., and duly press-agented—wouldn't find a good market. It would have 66% more energy than the long rifle, at a cost of less than 2 cents per round. But that is mere conjecture, and the Hornet leaves nothing to be desired in power, flat trajectory, and accuracy, up to 150 yards.

That is ample for the average man's vermin-shooting. These 300- and 400-yard shots on chucks are merely a fad for skilled riflemen, and not at all common. The one kind of vermin which the average man may encounter frequently at much over 100 yards is the coyote, regarded rather seriously by many ranchers and farmers because of his "taking" ways and valuable hide. For this bigger animal, at longer ranges, the .219 Zipper and .250 Savage are the rifles, the latter being superior at the longer ranges. If the average man cares to try them, the bolt-user's .220

Swift and .257 Roberts are better still; but he will rarely need the pep and speed of even the .219 Zipper and .250-3000. The difference between these two pairs of cartridges is not great; and should Savage see fit to put out their Model 99 with a fairly heavy 26-inch barrel in .250 and .22 high-power calibers, and load the latter cartridge with light, swift bullets, the difference would be darned little. Just another conjecture; but that Savage 99 is very accurate, good for Spitzer bullets, and better adapted for low scope mounting than most bolt-actions, besides being smooth and handy to operate and carry. It might be worth some thought.

We turn now to the rifles for deer, which animals are usually shot in the woods at ranges under 100 yards; and the .30-30 class of gun is quite satisfactory for the average man. It is a handy gun to carry and to shoot, has not much recoil, and the bullets cut through brush better than the light high-speed missiles. And there is power enough, as the thousands of deer killed with a single bullet from such guns prove. Of course, you can find instances in which any rifle has proven ineffective, if you look for them. (Just ask Elmer Keith about the .30-'06, sometime.) The .30-30 bullet has the same diameter as the .30-'06 bullet, and is made in similar weights. The .30-30 muzzle velocities equal .30-'06 velocities at about 250 yards, and if the '06 is big enough for anything that walks, up to 400 yards or more, why isn't the .30-30 a good rifle, and possibly for bigger game *at woods ranges*?

The .32 Special, .30, and .32 Remington rimless are all in the .30-30 class. The .303 Savage, with its heavy bullet, is perhaps the best killer of the lot, and too little heard of.

The late R. F. Sedgley testing a rifle at the home of F. W. Breuil, at Eldorado, Md. Mr. Breuil is shown at left, with L. J. Hathaway center



However, the .30-30 is now being loaded by Peters with 180-grain bullet, and this is the cartridge for the odd shot at moose, etc., with this caliber.

If there is much chance for bigger game than deer and black bear, the average man had better try a bigger rifle. The .30-30 class will kill anything in North America, but more power kills better, especially if the bullet is not so well placed. But the power must not be so great as to cause John Q. to flinch and miss (and be it noted that John Q., doing as little shooting as he does, is distinctly susceptible to recoil and muzzle blast). From what I have seen, I consider that even the .270 and .30-'06 are too powerful for the ordinary man, let alone the .300 Magnum and .348. Recommend them to the average man, and you simply urge him to adopt a gun that he will use with nervousness, and less effectively than he would a lighter gun.

The heaviest guns that the average man can handle well, are, I think, the .30-40, .300 Savage, 7-mm., .33 Winchester, and .35 Remington. All of them have splendid reputations as killers, and at ordinary ranges show up just about as well as high-speed guns, all theories to the contrary notwithstanding. The 7-mm., .300, and .30-40 are flat enough in trajectory for shooting in open country, and the last-mentioned cartridge could be modernized to give 2800-2900 f.-s. with 150-grain bullet in the 28-inch barrel of the Model 95 Winchester, with other loads in proportion; making this an ideal combination of power, flat trajectory, and light recoil. As the bullet can usually be placed fairly well in open shooting, the .250-3000 comes in here too, and this also is a cartridge with a great reputation, and very mild in recoil.

Moreover, in this kind of shooting, with a larger proportion of prone shots, the bolt-action guns show up well enough in comparison with others, and are chambered for some excellent cartridges. But most of them, save the .220 Swift, .257, and 7-mm., have excessive recoil, their added range is of little or no value to the ordinary shot,

and they are poor saddle guns. They can be used with satisfaction, but on the whole the advantage between this and other types of actions—for the average man—lies with the other guns, I believe.

A brief word about sights. For speed, ruggedness, and simplicity, the open sight comes first, the peep second, and the scope a rather poor third. Likewise in the matter of expense. In the matter of accuracy and ease of using, the order is reversed. For woods shooting, where sights may have rough usage and speed of aim is sometimes important—and fine accuracy less so, open sights will give excellent satisfaction—as they have done for years in the hands of hundreds of guides and woodsmen. On vermin rifles they do well enough at short ranges. For medium and long range, on any type of rifle, I think the peep is worth having, and the scope worth trying—especially for the man with poor sight, and for the coyote hunter. However, far more game is killed at long ranges with open and peep sights than writers lead us to believe, and it is very much of a question in my mind whether the scope is worth its very considerable cost—to the average man with little money. But by all means try it if you feel inclined to.

An important matter in regard to sights for the average man is that he shouldn't have to pay for expensive features that he will not use, such as micrometer click adjustments. A plain sight with simple adjustments and no fancy frills is just as good for him as the more costly article.

As I approach the end of these rambling remarks, I have a suspicion that not a few will rise up in their pews and call me prejudiced and crazy. They may be right, but I have tried honestly to express what I think are the attitudes, needs, and desires of the average man. If my guess is wrong, I'll be glad to be corrected. But if I am right, John Q. Average Shooter has been a forgotten man in the rifle world for lo these many years. He buys most of the guns, equipment, and accessories, but apparently he's like Dad—who pays the bills for the family but never gets much say in how the money is spent.

THE PISGAH HUNT

(Continued from page 20)

Not that we couldn't take it, but purely upon the advice of our host, Jim Beloungdy, we selected the main hunt, merely taking a look in on the wilderness hunt on our return from a trip which would prove the above statement—a trek of three miles—plus a twenty-two mile ride in an open job, narrow gauge logging railroader up Hooper's Bald in the Great Smoky Mountains, for a shot at the wild Russian boar or elusive bear—but that's another story.

The wilderness hunt in particular paid dividends to those hardy nimrods. We couldn't help being impressed by the fourteen deer carried out by pack horses the afternoon of our leaving, whetting our desire to get on a stand of the main hunt the following week.

It seems that the management of the "Pioneer Radio Station of the South", WBT, Charlotte, N. C., was thinking the same thing, so a broadcast was arranged. Of course, the fact that program director Charles Crutchfield, the man to make the first on-the-firing-line broadcast of a major rifle match and chief engineer Jim Beloungdy, along with announcer Bill Bivens and others of the WBT staff were in the wilderness hunt may have favored the idea, but a broadcast was made, and another "first" was marked up for that station. Thirty-five miles of wire was strung up to connect with

the nearest telephone lines; pack horses carried in the amplifiers, microphones, and other equipment, and installation made on the banks of Big Creek, deep in the Pisgah National Forest to bring to the outside world the story of hunters in the wilds of one of Uncle Sam's greatest ventures in game preservation.

Conservation is a part of "the typical American sport." When once you hear the story first hand, as we did, from Supervisor H. E. Ochsner, of the U. S. Forest Service; Fred Ruff, Game Technician of the Service; Chief Ranger of the hunt, John Squires, as they were interviewed by WBT announcers Crutchfield and Bivens, you sense the work of scientific investigation on wildlife; the wise management as regards comparative food supply and size of herd, which dictates the hunting regulations; the careful selection of ranger personnel and other details, as exemplified in this part of the U. S. Forest Service's plan of utilization of National Forest Land.

The newspapers and now radio have made their services available for a better understanding of the seemingly paradoxical doctrines of hunting and game preservation.—W. F. SHADEL.

The American Rifleman Index for 1938

Accessories

Subject	Description	Author	Month	Page
Binoculars —Comparison of makes.....		Goode	Sept.	23
			Oct.	34
Goggles —Ray Ban.....		Dope Bag	Feb.	44
Loaders' Equipment				
"Last word" powder measure.....		Dope Bag	Apr.	33
Potter electric furnace.....		Dope Bag	Feb.	44
Tru-line loading press.....		Dope Bag	July	53
Whitlock electric thermometer.....		Dope Bag	Feb.	45
Mounts				
Gilbert.....		Dope Bag	May	11
Peterson mount for hunting scopes.....		Dope Bag	Jan.	47
Redfield.....		Dope Bag	Feb.	44
Redfield.....		Tedmon	Aug.	22
Smith combination.....		Ness	Oct.	24
Rests				
Bench rests of 19th century.....		Lowe	Mar.	11
A home-made machine rest.....		Cooper	Jan.	14
Portable bench rests.....		Ness	Sept.	9
Sights				
Unertl tube.....		Dope Bag	July	54
Wheelock open.....		Dope Bag	July	53
Special —.22 caliber insert for 12 gauge shotgun.....		Dope Bag	Sept.	18
Spotting Scope —B. & L. 65 mm.....		Dope Bag	July	53
Targets —Special.....		Ness	May	14
Telescopic Sights				
Ajack hunting.....		Dope Bag	Sept.	18
Error of aim with.....		Ness	Apr.	14
Improved 330 Weaver.....		Dope Bag	Jan.	46
Lyman 2-1/2X Alaskan.....		Ness	Mar.	29
Mossberg-7A-adjustable power.....		Dope Bag	Jan.	47
Unertl hunting.....		Cottrell	Nov.	28
2-1/4X Zeiss Zielklein.....		Dope Bag	Feb.	42
4X Zeiss Zielvier.....		Dope Bag	Feb.	42
1-1/2X Zeiss Zielmar.....		Dope Bag	Feb.	43
Triggers				
Pike trigger mechanism.....		Ness	July	10
Smith.....		Dope Bag	Aug.	14
Thomas-Womack.....		Dope Bag	Aug.	14

Gunsmithing

General				
Home Gunsmithing.....			Nov.	12
			Dec.	18
Reconditioning flintlock.....		Tryon	Feb.	22
Recutting and refinishing flintlock barrels.....		Tryon	Jan.	16
Refinishing flintlock stocks.....		Tryon	Mar.	31
Remaking a cheap rifle.....		Carver	June	15
Shotgun fit.....		Curtis	Oct.	26
Hand-loading				
Amateur.....		Rothermel	July	27
Bullet lubrication.....		Frazer	Feb.	35
Cast bullets.....		Dope Bag	Apr.	46
Experiences with Stevens M 44 .32-40.....			June	7
Metallurgy of bullet alloys.....		Goodwin	Apr.	28
Necessary precautions.....		Dope Bag	June	46

Handguns

Competition				
All-American teams, 1937.....			Mar.	30
Existing national records.....			Feb.	28
National Mid-Winter tournament.....		Shadel	May	16
Description				
Free pistols.....		Jones	Feb.	20
Grips.....		Jones	Sept.	27
Colt-1860-.44 Caliber.....		Wingate	May	12
Colt .22 Frontier D. A. by Sedgley.....		Dope Bag	Jan.	46
Colt .22 Caliber Match Woodsman.....		Ness	Aug.	28
Colt .22 Caliber Service Model Ace.....		Hatcher	June	16
		Ness	Aug.	29
Colt .32 Automatic.....		DuMond	Sept.	7
H. & R. "Ultra" Sportsman.....		Dope Bag	Mar.	47
Remington—"New Model"—1850-.44 cal.....		Wingate	May	12
Walther Olympia Sport Pistol—.22 cal.....		Ness	Aug.	28
History —Various cap-and-ball revolvers.....		Wingate	July	24
Instruction				
Effects of Cant.....		Roper	Dec.	24
Fundamentals.....		Wyman	Jan.	9
Improving your score.....		Wyman	Dec.	21
Timed and rapid fire.....		Wyman	Mar.	25
Use of peep hole.....		Roper	Feb.	15
Loads				
Amateur hand-loading.....		Rothermel	July	27
Cork wads.....		Krause	Sept.	8
Heavy loads.....		Dope Bag	May	52
.32 Bond-Ness bullet.....		Dope Bag	Jan.	45
.44 S. & W. Special.....		Landon	Jan.	43
.45 A. C. P.....		Dope Bag	Oct.	63
Use				
Double-action.....		Peterson	Oct.	21
For hunting.....		Storm	Nov.	13
		Dope Bag	Nov.	44
Loading for cap-and-ball revolvers.....		Wingate	Aug.	19
Long range pistol loads.....		Dope Bag	Apr.	47
Hunting				
General				
Early history—Pennsylvania.....		Irwin	Jan.	28
Marksmanship.....		Frazer	Oct.	17
Rules for entering Canada.....		Dope Bag	Nov.	45
Use of pistols in hunting.....		Storm	Nov.	13
		Dope Bag	Nov.	44
Bear —On Bald Mountain.....		Lee	Feb.	26
Deer —Conservation of white-tails.....		Jordan	Mar.	18
			Dec.	20
Duck —In New Mexico.....		Askins	Feb.	16
Jack Rabbits —As training for deer.....		Tedmon	Dec.	5
Quail —New Mexican Quail.....		Askins	Nov.	19
Squirrel —With .22 rifles.....		Hartwell	June	27
Wild Boar —Poland.....		Rosenberg	May	5
Woodchucks				
Positions.....		Jewett	Sept.	22
Selection of arms.....		Thomas	July	15

(Continued on page 34)

BRIDGEPORT, CONN., DEC., 1938

Rifle Remington

THURMAN RANDLE AND J.R. MARTIN STAR AT OKLAHOMA MATCHES

"PALMA MATCH," PALMA KLEANBORE" AND MODEL 37 SHOOTERS SWEEP EVENTS

19 out of 22 first places, including all 3 aggregates, won with Remington Ammunition

OKMULGEE, Okla.—Shooting Palma Match and a Model 37, veteran Thurman Randle of Dallas, Texas, proved the outstanding shooter at the 13th annual matches of the Oklahoma Rifle Association. Randle took first place in the Oklahoma championship aggregate with 2907, an 8 point margin over McLeod Greathouse (Palma Kleanbore), who was second. Randle also won the iron sight aggregate with 1556, and was third in the any sights aggregate.

J. R. Martin of Wichita Falls, shooting Palma Kleanbore, won two individual events, the 100-yard open and the Dewar, and the any sights aggregate.

Tulsa wins team event

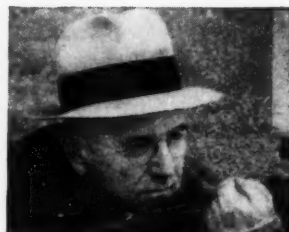
The Tulsa Rifle Club won the 4-man team event with 1567, a margin of 9 points over the Wichita Falls Rifle Club. All four of the Tulsa team used Palma Kleanbore, as did two of the Wichita Falls team, with a third member using Palma Match.

J. P. Steele and McLeod A. Greathouse of Fort Worth won the 2-man team event with 774, both shooting Palma Kleanbore.

J. R. Berryman of Tulsa won two Class B events, as did C. F. Sellers of Bunker Hill, Kansas. Both used

Palma Kleanbore, and Sellers used a Model 37.

Frank Record of Wichita Falls, Texas, won the Short Range Individual Match, Class A, with 395 x 400, shooting a Model 37 and Palma Kleanbore. Other winners include H. E. Brill, J. P. Steele and C. N. Wynkoop, all of whom shot Palma Kleanbore ammunition, as well as Earl Shick, Dr. R. G. Carl and E. B. Stout, who won with Palma Match.



Thurman Randle of Dallas, Texas, does it again . . . winning 2 aggregates in Oklahoma shoot.



McLeod Greathouse was second in the Oklahoma Championship aggregate . . . won in 2-man team event.

RED LETTER DAY... BEING CASUAL ABOUT THAT FIRST 10X POSSIBLE



MORE SHOOTERS EARN 10X AND 400 BRASSARDS



10X MADE IN COMPETITION
Edwin Cole of Highland Park, Ill., made this 10x in the 100-yard stage of the Dewar Match (iron sights) shooting a Model 37.

BERNER GETS BRASSARD
Robert Berner, Dayton, O., made this 10x at 100 yards with Palma Kleanbore.



MODEL 37 AND "HI-SKOR"
Proof of the accuracy of this new regular-price ammunition. Made at 100 yards by John R. Whitehead of Roan Mt., Tenn.

400 WITH PALMA "KLEANBORE"
S. E. Pipes, Monroe, La., sends us a nice set of targets adding up to 400 x 400 over the Dewar course, iron sights, 100-yard targets shown.



SCORED IN COMPETITION
H. P. Rettinger, Sunbury, Pa., won his 400 brassard with good old Palma Match. Here's one of his 100-yard targets.

ANOTHER FOR "HI-SKOR"
Here's a 400 with Hi-Skor, by Fred Clemens, Northumberland, Pa. 100-yard targets shown.



GETS 2 BRASSARDS
C. Barrow, Sunbury, Pa., scored 400 x 400, and as this 100-yard target shows, gets a 10x Brassard as well. Palma Match.

ONE FOR FLEMING
L. B. Fleming, Sunbury, Pa., gets his 400 brassard. Composite of 100-yard targets shown.



POSSIBLES and IMPOSSIBLES

by FRANK J. KAHRS



Jerry Naimi of the Infantry Rifle Team tried the new Remington Palma Springfield ammunition at Camp Perry. He tied the winner of the President's Match with a score of 146, but ranked third. He scored 48, 48 and 200, 600 and 1000 yards respectively.

Sgt. Albert K. T. Ho of the Hawaiian National Guard, 298th Infantry, Honolulu, was high in the President's Match for the National Guard Troop with a score of 142. He also shot Palma Springfield.

Norman MacEwan, instructor of the Junior Division of the Wheeling & Pistol Club, Wheeling, W. Va., recently knocked out a 10X possible 100 yards and was awarded a brassard. It was his first "offense." He established a club record in the caliber class, firing a 30-shot string the Army "D" Target at 200 yards dropping only 3 points to score 227. He shot Hi-Skor ammunition.

Charles M. Cronk, also of Wheeling, won the Hatcher Trophy with 390 x 17X's. This was really a fine performance as a heavy fog, which had set in on the range, and a shifty wind combined to make conditions very bad. He also shot Hi-Skor.

I see the Brass City Rifle Club, Waterbury, Conn., has been holding its fall matches with George Sheldon starring. George turned in two possibilities, winning the Grand Aggregate, the 50-meter iron sight match, and the 2-man event teamed with Guy Moorehouse. George shot Palma Kleanbore.

Had a letter the other day from H. B. Raby of Norvell, Michigan, who's still putting 'em in the 10 ring even though he's past the first milepost in the eighties. He sent us a newspaper clipping reporting some truly exceptional shooting done by Charles Greiner of the Grass Lakes Rifle Club. I was even more interested to notice that Mr. Raby tied for first place in Class A.

They seem to shoot better by car headlights than by daylight out in San Antonio, Texas. In a recent shoot held by the Liberty Rifle and Pistol Club, the last two events were shot after dark . . . and were won with higher scores than were made in some of the daylight events.

Don Lawrence of the Austin Police won the last two individual events on the program with Remington ammunition. He scored 287 over the National Match course. The Texas Rangers won the team event, shooting Remington ammunition.

THE TARGET OF THE MONTH



Here's a truly exceptional 10X possible at 100 yards. Made by Gerard J. Gagne of North Grosvenordale, Connecticut, with a Model 37 and Palma Match.

Send in your hot targets to Frank Kahrs, Remington Arms Co., Inc., Bridgeport, Connecticut.

ES and
BLES
KAHRS

JONES WINS HIGH INDIVIDUAL AT MCGINLEY POLICE SHOOT

entry Re
ington P
Camp P
e Presi
146, but
48, 43 an
respecti
of the H
h Infan
e Presi
uard Tr
o shot P

uctor of
heeling
W. Va.
possibl
a brass
," He
in the
not strin
200 ya
core 227

of Wheel
with 330
me perfor
had set
wind es
very le

le Club
en holdi
ge Sheld
two pos
Aggrega
ch, and th
Guy Moe
Kleanbo

from H. B.
who's still
en thoug
st in the
paper clip
ceptions
Greiner d
was even
that Mi
Class A
car head
ut in Sat
shoot hel
stol Club
shot after
th higher
me of the

tin Police
events on
an amm
the Ne
as Rang
shooti



Sgt Thomas E. Jones of the Pennsylvania Motor Police, who won High Individual score at the Thos. A. McGinley Match.

**Penn Motor Police
Sergeant scores 281 x 300
with Targetmaster**

SEWICKLEY HEIGHTS, Penna.—Topping the pick of the country's police marksmen, Sergeant Thomas E. Jones of the Pennsylvania Motor Patrol turned in a score of 281 in the 14th annual McGinley Police Match here to win the High Individual title. He was shooting the new Remington .38 Targetmaster ammunition.

46 teams compete

There were 46 four-man teams competing in the match, which has become a classic in police target shooting. The shoot is sponsored by Mr. Thos. A. McGinley, and is held on his estate.

Penn team second

The Pennsylvania Motor Police team placed second in the team match, scoring 1089. The team consisted of Jones, T. E. Eshleman (winner of the Police Field Firing Match at Perry), who scored 274, W. A. Stile, 269, and B. L. Burtner, who had 265. The entire team used .38 Targetmaster.

G. W. PAINE WINS CERRO GORDO PISTOL CHAMPIONSHIP

**Scores 287 over National
Match Course**

ASON CITY, Iowa—G. W. Paine of Minneapolis, Minn., won the Cerro Gordo Championship event at the recent registered pistol shoot in this city.

Shooting Remington ammunition, Paine scored 95 slow fire, 95 rapid fire, and 97 rapid fire for a winning total of 287.

Paine made consistently high scores throughout the matches, netting a total of five second places and three third places in addition to his victory in the important Cerro Gordo Championship event.

E. C. HAMLEY SCORES 400 in Dewar at So. California matches

E. C. "Doc" Hamley, Jr., of Glendale, recently made the first 400 x 400 ever scored in the Dewar (iron sights) in a Southern California League Match. "Doc" was shooting Palma Kleanbore, and his possible earns him a Remington 400 brassard to match his 10X brassard.

HEISER WINS AT LEHIGH VALLEY CHAMPIONSHIPS

R. D. Heiser scored 198 x 200 to win the 50-meter iron sights event at the recent Lehigh Valley Championships. Heiser also ranked third in the aggregate with 988 x 1000. He used Palma Match.

PENNSYLVANIA MOTOR POLICE PISTOL TEAM

Winners of the Sobel Trophy at Camp Perry, this team cleaned up at the recent matches at Teaneck, N. J., and placed second at the McGinley shoot. Left to right—B. L. Burtner, W. A. Stile, M. J. Sedlock, R. C. McKee, Corp. T. E. Eshleman, Serg't T. E. Jones, C. C. Snipas, Serg't L. R. Feloni, Maj. J. C. Mauk.



Legislation				Subject	Description	Author	Month	Page
Subject	Description	Author	Month	Page				
Federal				Winchester M 67-22	Ness	Dec.	17	
				Winchester M 70-257	Ness	June	9	
					Roberts	Jan.	7	
Bills pending	Hakenjos	May	30	Winchester M 70-375	Roberts	Jan.	6	
Evils of registration	Lister	Jan.	27	Winchester M 71-348	Goode	Mar.	13	
Federal Firearms Act (Public Act 785)	Reckord	June	10	Winchester M 72-22	Dope Bag	June	34	
Progress report		Apr.	8	Winchester M 75-22	Ness	Dec.	17	
				Winchester .218 Bee	Dope Bag	June	47	
				Winchester .219 Zipper	Goode	Mar.	13	
State				History				
Pennsylvania law clarified		June	33	Frontier firearms	Cook	Sept.	6	
Pistol Permit Laws		Nov.	29	Spencer Carbine	Machieveli	July	22	
Progress report		Apr.	8	Instruction				
Miscellaneous				Fundamentals	Murphy	May	27	
Cameras				Group tests	Cooper	Apr.	30	
Selecting a sportsman's	Kellerman	Jan.	5	Indoor Training School	Farris	Oct.	41	
		Feb.	9	Junior	Brown	Nov.	38	
Use by sportsmen	Kellerman	Apr.	16	Junior camp procedure		June	20	
		May	18	Junior club	Sizer	Nov.	25	
N. R. A.				Junior club activities	Goebel	Apr.	10	
Executive Committee meeting		July	35	Juniors in the field	Manly	July	17	
Members' meeting		Mar.	22	Positions, correct, official	Wessels	June	3	
Special Articles				Positions, hunting	Frazer	Oct.	17	
Alibis, reason for	Weston	Aug.	27	Positions, standing	Milner	Sept.	17	
Ballistics, black powder	Manly	Nov.	18	Rapid fire	Crossman	July	20	
Ballistics, bullets in flight	Popowski	Dec.	8	Loads				
Ballistics, minutes and inches	Dope Bag	May	50	L-17 Lovell	Dope Bag	Sept.	46	
Ballistics, a theory of recoil	Hughes & Bodfish	Nov.	10	R-2 Johnson Lovell	Dope Bag	Sept.	46	
Ballistics, wind effects	Lamke	Jan.	20	R-2 Risley Lovell	Dope Bag	Sept.	46	
Construction, proper range lighting	Cissell	July	7	.218 Bee-Model 54W	Dope Bag	Sept.	46	
Construction, W. P. A. assistance	Shadel	June	29	.218 Bee in Winchester M.65	Dope Bag	July	23	
Medical, "Tularemia and the Sportsman"	Given	July	32	.22 Savage High-Power	Dope Bag	Sept.	46	
Publicity, how to break into print	Shadel	Jan.	35	.22-3000 Lovell	Dope Bag	May	51	
Publicity, National Match arrangements		Aug.	12		Smith	May	10	
Rifles				.22-3000 Lovell-improvements	Dope Bag	Feb.	39	
Competition				.22-3000 Lovell in Winchester 54	Akin	Jan.	13	
Breech loaders vs. muzzle loaders, 1886	Lowe	Mar.	5	.220 Swift	Dope Bag	Dec.	43	
Collegiate All-American team		June	32	.25 Roberts and .257 Roberts, pointed bullets for	Roberts	Jan.	8	
Small bore ranking, 1937		Feb.	11	.25 Stevens	Dope Bag	Jan.	42	
Description				.250 Savage	Dope Bag	Sept.	43	
Automatic firearms	Johnson	Apr.	21	.250 Savage, "The Varminter"	Dope Bag	June	47	
Brockway, .45	Roberts	Dec.	12	.30-30 caliber	Dope Bag	Nov.	44	
Comparison of junior rifles	Dope Bag	Apr.	47	.300 H. & H. and .375 H. & H. Magnums	Goode	Mar.	12	
Colt .44-70 "Target model"	Roberts	Jan.	8	Cork wads	Krause	Sept.	8	
	Scofield	Feb.	14	Duplex loads	Keith	Sept.	3	
Diana No. 35 air rifle		Apr.	33	Tracer bullets		Jan.	36	
Farquharson rifle	Rosenberg	June	22	Winchester M 70 and M 54	Dope Bag	Oct.	62	
Garand rifle (U. S. A.)	Drewry	Aug.	5	Manufacture				
Johnson automatic rifle	Ness	Nov.	3	Home made	Burnham	Nov.	23	
Krieghoff autoloading—30-06	Dope Bag	Nov.	45	How guns are made	Curtis	Nov.	8	
Lewis, .44 double barrel	Roberts	Dec.	14	Shotguns				
Mauser MS-250-B .22 caliber target	Dope Bag	Sept.	18	Description				
Overbaugh, double barrel	Roberts	Dec.	3	Ithaca M 37	Dope Bag	Sept.	43	
Savage M 6-S auto-.22 caliber	Dope Bag	June	34	Ithaca M 37 repeater	Goode	Apr.	29	
Springfield M-17 Litewate	Dope Bag	May	11	Marlin M 90 over-under	Dope Bag	July	53	
Stevens M 416 target rifle	Goode	Mar.	44	Savage M 220 single barrel	Goode	Apr.	29	
Remington M/37	Goode	Mar.	43	Savage M 420 over and under	Goode	Apr.	29	
Remington-M 37-22 "Rangemaster"	Goode	Aug.	23	Savage M 430 over and under	Goode	Apr.	29	
Remington M 37 Rangemaster barrels	Dope Bag	Nov.	45		Dope Bag	Sept.	43	
Remington M 2-25-20	Manly	Apr.	6	Winchester 28 gauge pump	Goode	Apr.	29	
Remington-Hepburn-M 3	Manly	Apr.	6	General				
Warner, .45 cal.	Roberts	Dec.	12	Choke-history and functioning	Curtis	Jan.	22	
Winchester 52	Hession	Oct.	62	Short chambers	Curtis	Mar.	21	
Winchester Improved M 52	Goode	Mar.	13	Small metal parts	Curtis	Sept.	12	

GUNSMITHS

(Continued from page 23)

stock of such wood. To Pennsylvania went an order, and in due time the stock blank arrived. It was the color of white pine, and had but little more grain.

I had grown to respect gunsmiths while living in Pennsylvania, and I thought these Pennsylvania boys might have a little more on the ball than the average, so with hopes again high, I tied the barrel and stock together and sent the whole thing back there. This time I was again guided by the ads in our favorite magazine, and I wrote out the most specific set of instructions any gunsmith ever received: Re-blue EVERYTHING; mill receiver to fit Lyman 48 rear sight; fill ramp front sight; inlet action and bed barrel in a \$13.00 American walnut stock, and fix bolt to cock on opening. This gunsmith seemed to have a fine reputation, and I expected to have to pay plenty for the work; but I thought that if it took money to get a good job, I would shoot the works, once, anyway.

Again weeks rolled by before I saw my pride and joy, but when it arrived this time I noticed that I was beginning to get somewhere. The blueing job was positively beautiful. The bolt did *not* cock on opening, for which I was nevertheless charged, and I had to get the written statement of another gunsmith to the effect that it hadn't been made to cock on opening before I was refunded the cost. The receiver was milled, drilled, and tapped for the Lyman 48, and the ramp front was all right. The stock was a beautiful piece of butt walnut, and fitted in every way except for about an eighth of an inch clearance at the rear of the receiver; but the gunsmith assured me that the hole would "take up" when the gun had been shot a while. Confidentially, I do not think they have ever made enough ammunition to do the trick, but time should tell. The pincolor stock was returned to me with the statement that it was no longer of any use to its former owner. Contrast the conditions here with the California gunsmith's adjustment.

Now for the final trip for the bolt. I sent it to a Wisconsin "gunsmith" who dubs himself such in the columns of *THE RIFLEMAN*. He complained that the other fellow had almost ruined it, but that he was able to do a first-class job on it. The only thing I could find wrong with it upon its return was air-holes in the weld, while the round portion of the cocking piece was egg-shaped.

Well, at last I had corralled all the gadgets and other parts I expected to use. King swivels, Shooters' Specialty recoil pad, sheep-lined case, Army sling, Whiteman's checkering tools—and Job's patience. I got at the stock, shaping a semi-beavertail forearm, high comb, and cheek piece. Eventually, with rasps and sandpaper, I worked it to my own satisfaction, fitting as I went the flush plates for the demountable swivels. These plates must be re-shaped in the case of a flat forearm, as they come only with the curvature of the metal stock from which they are made. This calls for re-blueing.

Next came the rear sight and the recoil pad. The latter was easy, but I soon found trouble with the sight. The holes had been tapped so far back that the sight base interfered with the bolt handle. Since the handle was polished and would not require blueing, I filed it away to secure the necessary clearance.

After raising the grain on the stock twice, no fewer than 36 coats of raw oil, boiled oil, raw oil and varnish, shellac, and other combinations of ointments and unguents were applied to the wood to produce the desired finish. This was necessitated mainly by the persistent seeping of some

fancy preservative with which the blank had been treated. Checkering was not difficult, as I used Whiteman's tools.

And now for sighting-in. I snapped on the sling, wondering if the assemblage that had given me so much entertainment during the winter months would hold together or fly to the several states whence the different parts had come. The front sight was too high to retain the low line of sight I desired, so I considered means of lowering it, only to find that I had to cut down the blade, re-drill it, file off some of the base, and re-blue the complete sight. All right. I was getting sort of fed up on this thing, but I would do it anyway, just to have the satisfaction of owning a gun exactly as I wanted it. Now, one would naturally think that an eastern gunsmith would have in stock, or could get, a sight to fit almost any barrel. But such must not be the case, for when I took off the ramp there was the cleverest little steel shim wrapped around the barrel and just wide enough to escape detection without removal of the sight. It was the only time I had been tempted to cut off the barrel, and I should have done so if the sight would have slipped on far enough to clear the key groove, which it would not. So I worked it over, and attached it as before.

What have I managed to salvage out of this? Well, a reliable dealer estimated the value of my gun at \$125.00. While I do give gunsmiths credit for much of the work, I feel that I have made a gun in spite of them. I would not have anyone take this as a blanket indictment of all gunsmiths, but I do believe it a bit unusual after carefully selecting what I took to be expert gunsmiths, that I should have chosen men who in every instance fell short in one way or another. Someone does make fine guns, however, and in spite of my bitter experience I ogle and drool at the sight of a fine firearm. Griffin & Howe and some of the other notables in guncraft cannot possibly make *all* the masterpieces, so I suppose it was my misfortune to have caught good men in off moments.

TRY JACKRABBIT SHOOTING

(Continued from page 7)

However, woe betide the jackrabbit hunter who can't see beyond the jackrabbit. Many farmers and ranchmen positively refuse to allow a rifle hunter on the place. Shoot the shotgun all you please, but nix on a rifle. Why? Because some dampfool ventilated the invaluable bovine milk producer, or crippled unto death a good horse or two. Another playful prank of the same breed of idiots is to blast away with a Springfield over a flat, frozen field. Of course the dumbbells can't yet understand why the farmer objected to those 180-grain bullets screaming over his house. Be careful about this sort of thing, and never fail to have a hunting license in your pocket and to get permission to hunt.

The main trouble with 90% of all our big-game hunters is that they go into the game field with absolutely no rifle practice. Also, their legs are soft and rubbery, their bellies are flabby and their eyes are dim with cigarette smoke. Now, when all these weaknesses are added together it is no wonder that so many deer are missed completely, while as many others go off sorely wounded. There is no excuse for lack of rifle practice and training. If you can't do any better you can dry-practice in your room. This rifle exercise will at least harden your muscles and train your eye to your sights (I practice it for a month before leaving on a hunt). But actual firing at running jackrabbits with *your* deer rifle is the best way to gain the absolutely necessary skill that I know of. It is the kind of rifle work that will put buckskin steaks into your frying pan.

OLD MUZZLE LOADERS

(Continued from page 16)

However, we find certain types of these rifles that were especially made for use with a bullet cast in two parts, with the base of pure lead and the front part of hardened metal—frequently babbit metal. Almost invariably these rifles were made for use with a paper patch, either the two-strip or the cross-patch, cut from a bond paper and slightly oiled with pure sperm oil before use. The late Norman S. Brockway told me that his very finest-shooting rifles were rifled especially for this type of bullet, and were used with the paper patch slightly wet with sperm oil; but we know that he also made many very accurate rifles that were made for the "sugar loaf" type of bullet used with a cloth patch.

The bullets of whatever type of these old muzzle-loading target rifles were always "swaged" before use, and in this process of swaging the shape and often the size of the bullet was changed. By that I mean that the bullet might be cast somewhat smaller than the bore of the rifle, or not quite the desired shape; then it was swaged to the correct size and shape. The swage was simply a hardened steel die with a plunger, ground to the diameter and shape of the bullet desired, in which the bullet was placed and the plunger struck with a mallet so as to upset the bullet and shape it correctly. Then the swage was held bottom side up and struck with the mallet to jar out the bullet. Some swages were intended to be slightly oiled with sperm oil before use, so the bullet would not stick therein. Other makers advised slightly lubricating the bullets with beef tallow before swaging, which was done by rubbing a little tallow on the hands and rolling the bullets between the palms. With the majority of swages we find this latter method gives the best results and the bullets come out of the swage easily. But do not get too much tallow on the bullets—just a very thin film is sufficient. Many of the old-time bullet moulds were very crude, and the bullets simply had to be swaged to shape, but with our modern bullet moulds that cast bullets the right size and shape, we find that swaging is often not necessary in order to get the finest accuracy.

THIS MATTER OF CANT

(Continued from page 26)

placement of the point of impact, and only 11 degrees of cant can be taken and still make 10's. This, however, is a long, long way from what we've been told canting will do to the point of impact of the shot.

Now let's take a look at the .38 Special, as someone is sure to bring up the point that, due to the upward kick of the gun, the bullet is said to have upward velocity of some 50 feet per second when it leaves the muzzle, and that that must have a real effect upon the result when the gun is canted. The truth is that every handgun moves upward during the time the bullet is passing through the barrel, and the .38 is only different in amount of up-kick from the .22. Just measure the height of the back and front sights above the center of the bore, and see where the bore is pointing before discharge, if you wish to check up on that statement. That upward jump doesn't stop old gravity from working, however, and the bullet will be pulled downward exactly the same amount that it would be if it had fallen off a shelf.

Back a ways we remarked that the expression "line of

departure" was more correct than "line of bore." It is because it takes into consideration the upward velocity of the bullet due to the recoil. That line of departure is simply the tangent to the trajectory curve of the bullet at the instant the bullet leaves the muzzle. The bullet falls below the point where that line of departure would pierce the target if it was extended to it, by the drop due to gravity.

What that upward toss given the bullet by a harder kicking gun like a .38 Special does is to make it necessary to sight the gun enough lower to make up for the toss. The .38 Special bullet drops 6" in traveling 50 yards, so the line of departure must cut the target 6" above the center of the ten ring. The center line of the barrel will point way below the sighting point before discharge, but the up-toss will, if the gun is properly sighted, make the line of departure such that if extended to the target it will cut it 6" above the center of the bull.

The up-toss therefore has no effect upon the result of canting, and we have simply a drop of 6" to consider. Using the formulae already given for the effect of cant due to eye fault, we find that a 10-degree cant will make the .38 Special bullet strike 1.04" to the side and .09" below the center of the bull at 50 yards. A 30-degree cant will make it strike 3" out horizontally and .804" below the center of the ten ring, and a 45-degree cant will give you a pretty little hole 4.24" to the left or right depending upon which way you cant the gun, and 1.75" lower than it should be to knock the pimple out. So even with a .38 Special at the longest standard target range, canting doesn't cause the damage we've been led to believe.

If you cant your .38 to make your arm feel more comfortable, and hold at the real 6 o'clock point, the effect will be a little more pronounced, but easily offset by sight adjustment. Figure 6 shows where the shots will strike with cants of 10 and 20 degrees due to both the causes mentioned.

The moral of this story is that canting a handgun isn't of enough importance to warrant any consideration, and as an alibi—well, don't blame a cant of five or six degrees for that nice juicy five down at seven o'clock! Canting wasn't the cause of it, by a long shot.

HOME GUNSMITHING

(Continued from page 19)

better and lasts longer on wood than does either sandpaper or emery cloth. As it fills up with wood dust it can be struck against the edge or leg of the bench, when most of the dust will be shaken out.

One man of my acquaintance, in remodelling a stock, cut a square tenon on the grip, and after boring the hole in the butt piece he squared it up with chisels. This takes a little longer, but a butt piece so fitted needs no locking dowel to prevent it from turning on the tenon, whereas with the round tenon it will be safer to run a 1/2-inch dowel up from the bottom of the pistol grip, after it has been formed, and almost through the tenon. This dowel can best be glued into place with duPont cement. I do not claim credit for inventing this "tenon" method of remodelling a buttstock. As far as I know, it originated with a gunsmith (I believe his name is John Harrison) of Gold Hill, Oregon. I have, however, used it several times, very successfully.

Incidentally, this tenon and new-butt method of remodelling stocks is not confined to bolt-action rifles, it being applicable also to lever and slide-action rifles, where one does not care to undertake the work of inletting an action into a new stock. The tenon in this case would be farther back from the action, although it need not clear the tangs entirely.

(To be continued)

OVER THE NEWS DESK

CLUB SUGGESTIONS

Admitting the ever-increasing degree of feminine talent on rifle and pistol ranges, shooting is primarily a man's game. Be this as it may, the following, written by a woman, and the secretary of a rifle and pistol club to boot, is, despite the growls that will be forthcoming from our outraged male readers, addressed—

TO THE LADIES

and specifically to those non-shooting wives of shooting husbands. The men may read it when friend wife isn't looking, if they wish—and they may find in it something worthy a thought or two. But by all means let her read it!

"There are some new men on the firing line, boys, and they need help," our pistol and rifle club president began. "There are just two ways to help them," he continued, "the right way and the wrong way. The right way is to stand at the new man's shoulder, ready and willing to help him where he needs help and when he needs it, because you are interested in him as an individual and as a club member. The wrong way is to show off and make the man feel inadequate because of your comparative ability. The strength of the club rests on your choice."

In the same way which our club has chosen this spirit of willing cooperation in a competitive game, I wish I might talk to sweethearts and wives of old shooters or reborn ones. You will not find my name among the few good women shots though I honor them for their ability to hold their places among men with no compromise. Your men folk do not know me; I might be the wife of any NRA member. The real reason I am the secretary of a club is that I talked too much at an annual meeting about the organization falling down, not for lack of interest in shooting but for lack of detail, as no man wanted to do the nasty work of the club. In other words, that was too good a target to leave unposted and I got the job. Some day I would like to put in enough time practicing shooting to take a place on a firing line, strong and steady and capable of shooting with the best. But in the meantime I will raise a family and try to learn to shoot clean targets in every problem which faces me. Some day I may make a "possible," but now the strength of the club rests upon my way of helping other shooters—because I am a link in a big chain.

There is a saying that "God is never found at the end of an argument." That is true of any argument and especially one about whether a man loves you more than his gun. I made that mistake once. Please, girls, never do it. You may get tears, or temper or divorce or a box of candy or sullenness or compromise but never harmony. To a man there is no conflict in the idea of loving both you and his guns and he will never understand why you need to contest the fact. He will take it for granted that you both have your place along with his business, indispensable to his life and happiness. And he will respect you to keep your place at his shoulder to help him willingly where and when he needs you.

You may never have respected a gun. Learn to. This will keep you safe. Treat a gun at all times as though it were loaded until you have proved for yourself it is not. One does not point even an empty gun at a person. If a gun is not pointed at you you cannot be shot. To know fear and to be afraid are two different things. Always know a gun can kill, but know also that a gun need not kill. Automobiles injure more people than bullets. If you can respect the man behind the gun you can respect a gun. If you are the kind of a girl who is accustomed to ex-

cusing herself from character obligations and if you are not married yet—don't. Respect for your partner's chief hobby is absolutely necessary.

The person who would become an expert marksman does not excuse himself short of perfection. The person who has just one occupation in which he allows himself no error is superior to the majority of people. The man who catches the value of this principle and applies it to his work as well as to his hobby will get ahead. The man who applies it to his character as well as to his hobby and work will know the supreme thrills of life. All gun lovers do not hold themselves to all perfections by any means but they have a start—and it is too good a start to chance spoiling. But be very, very careful not to commercialize on this idea. Your friend, husband,

NEW CLOSING DATES

In an effort to keep the tournament reviews section of the *AMERICAN RIFLEMAN* more up-to-date than it has been in the past, news, to be acceptable for publication, must reach the offices of the association not later than the 5th of the month, for use in the issue of the following month. In addition, no copy pertaining to shoots held more than two months before the story is printed can be used. In other words, all material for the January issue must reach us at least by the 5th of December, and as much sooner as possible, and must pertain to shoots conducted after the first of November previous.

or husband-to-be may never have consciously made this diagnosis of himself. It is not the popular thing these days to suppose that assuming responsibility can give pleasure. You need not be fooled by popular opinion for few people know how to be happy. The secret of a hobby is to narrow oneself to certain restrictions, so one may let out his (or her) energy not only safely but creatively. The result, though it may look to you like a piece of paper with a black spot in the center punched full of holes and wasted, is in reality a sacred target with perfection written across it in letters of lead. So, though guns may not interest you, do share his pride in achievement. When you have children you will know a man never should cease to be a small boy—once in a while.

Never scorn your husband's boyishness about guns. Many things age us and too few things keep us young. You may feel very forgotten when the man gets to talking guns and completely forgets you exist. He may be very rude if he is among fellow gun lovers or shooters. You need not excuse him but forgive him or go to something you like better in the first place and enjoy yourself. At Camp Perry one year I sat in the mess hall eating dinner amid the normal clatter of dishes. I was attracted by a girl and young man across from us, sister and brother I judged by resemblance. The boy was so elated about a certain match he had just witnessed he could not eat the meager portions he had taken on his plate. Two hands were gesticulating wildly and his eyes shone as he spun a yarn to an army officer beside me. But the girl was miserable. The dark brown of her eyes mirrored love, patience and pride, but social misery as the boy's voice rose, oblivious to the hundreds seated near, unconscious of everything except his own interest. There was no social rudeness in her attitude toward her brother, no air of selfishness in her humility as she gently pressed his arm and quietly asked him to be more quiet. But she couldn't eat and she was miserable. So I sought her eyes and smiled into them

(Continued on page 38)

TIMED FIRE with Bill Shadel

To you tournament managers: Just been thinking about the tournaments of the summer, large and small, where such commendable progress has been made in arranging for every detail of range and statistical office. That the shooters appreciate the speeding up of tournament procedure is clearly seen in the attendance figures. But there is one thing that seems sadly neglected. Very few of the tournaments we have attended, have included any arrangements for publicity. The promoters, it seems, have not recognized the fact that favorable press reports can mean a great deal toward the success of the immediate as well as future tournaments. We recall one of the largest tournaments of the east, where, after three days of the meet several reporters of prominent papers dropped in to remark that they had had no notice from anyone that a rifle match was being held. Yes, plenty of copy had been sent to the shooters to get them to attend, but not a word sent to news agencies to properly publicize the scores of these shooters. Perhaps that doesn't pay dividends as directly as registrations, but it seems from this corner, that any representative gathering of marksmen carries a certain responsibility of making the game known to the outsiders and popularizing these meets as much as possible.

Another thing: Oftentimes the reporter that tries to cover the matches for his paper is regarded as a necessary or unnecessary evil. Maybe he does cause some additional work for statistical officers, and he no doubt unwittingly gets in the way, but you must remember that he has a deadline to meet and is trying to get the news while it is news. In contrast to the reception he often gets at our matches, is that of the accommodations and the lavish arrangements made by every other major sport promoter—press box, special score sheets, records and biographical dope on possible winners, telegraph or phone connections, transportation, etc.—above all, courteous consideration with unusual access to records, busy officials and tournament news.

Now, we don't mean to imply that the matches are being conducted for the sake of publicity. The shooter must have first consideration, but at the same time, we need not ignore the chance to curry favor with the outside, just because we see no direct results from that source.

In our plans for future tournaments or gallery matches just ahead then, how about appointing a press agent to work with reporters that may be called in. Someone who can help in collecting scores and write advance copy to attract attention of editors and the public to the matches.

The regular athletic program of the Union Bag & Paper Co. in Savannah now includes pistol shooting both among their civilian hands and police. We can expect to hear from this gang in future tournaments as they get going on their extensive plans. . . . The Indiana State Police were a colorful attraction in Savannah as they made their first long haul to a major pistol tournament. Seemed to enjoy it, too, all seven of 'em.

Not going political but just offering congratulations to one of our riflemen, Governor-elect Harold E. Stassen of Minnesota, long time shooting partner of Emmet Swanson, and a former University of Minnesota rifle team member; Perry junior champion in '25 and member of the Dewar team of that year.

CLUB SUGGESTIONS

(Continued from page 37)

and said something about not trying to stop him. The time and the place were created for interests like his to let off steam. He stopped long enough to pass me a rare smile and the girl ate her dinner in comfort.

To the sweetheart or wife who can be a good pal to a man and forget herself for a day or two quite entirely, I suggest you can have a grand time if you go to Camp Perry or other matches with him once—if he asks you. It is an honor to be asked if you do not do any shooting yourself—if you are an outsider.

Maybe you would like to learn to shoot? Say so and see what happens! But there will be troubles anew because few people are good teachers and your closest friend is often the poorest help you can find. If he is and you still want to learn go to his club or his friends, with him, and they will help you, for all enthusiasts like new converts. Once you catch the spirit of the game you will love it; the spirit, I mean, and perhaps the game.

The man behind the gun is a better man the more targets he fires. The targets the man fires will be better for the helpful cooperation at his shoulder. Whether it be your shoulder as he leaves home to go shooting or your shoulder as you help him spot shots or as you fire as his equal on the line in clean competition. If your husband's mind can be a "house united" as he takes his place with the best men of the country he may not win a medal but he will be a happy boy as he returns to you at night. And he will return to this kind of a wife. Guns and strange women do not mix any more than gasoline and gunpowder.

"There are some new girls on the firing line, boys, and they need some help to understand you. There are two ways to help, the right way and the wrong way. The right way is always the same."—THEODORA B. KERR.

HOW TO RANK A PISTOL TIE

From inquiries being received in the Washington office it seems that many competitors, as well as some club officials, are confused as to the proper way to rank tied pistol scores, especially in matches that have been fired in two or more stages. The Rule Book covers this in the following terms:

"14-2—In pistol matches fired in stages, ties will be ranked:

- (a) By the highest ranking score at the rapid-fire stage,
- (b) By the highest ranking score at the timed-fire stage,
- (c) By the highest ranking score at the slow-fire stage."

The confusion is in regard to the word "ranking" used in (a), (b) and (c), and as to what effect this word has when applying the rule.

The rule, as published above, requires that if two, or more, competitors are tied in a multi-stage pistol match with the same total score and the same numerical rapid-fire score that the competitor with the fewest hits of lowest value in rapid-fire ranks on top. For instance—competitors "A" and "B" have finished the National Match Course with totals of 270 each. They both have a rapid-fire score of 94, but all "A's" shots out of the 10-ring in the rapid-fire stage are 9's while "B" has one 8 and four 9's. "A" therefore outranks "B."

In any match scored in five-shot strings it may be necessary to go still further with the rapid-fire score before using the timed-fire for tie-breaking purposes. If the two competitors above have six 9's each in the rapid-fire the last five-shot string value will have to be considered next. In this case the final five shots would be ranked as a separate match—first as to total score value and then as to the greatest number of shots of lowest value.

Should it be impossible to rank the tie by the rapid-fire stage the timed-fire is used under exactly the same method.

In the case of single stage pistol matches where all shooting is either slow-, timed- or rapid-fire, the scores are ranked by first considering the shots of lowest value for the entire match as explained above for rapid-fire. If a tie still remains, and the event has been fired in strings of five shots each, the tie is ranked by considering each five-shot string in its reverse order as a separate match, placing first the competitor with the highest ranking final five shots.

CHRISTMAS SEALS



Help to Protect Your Home from Tuberculosis

KNOW YOUR RULES

The wording of two N. R. A. Pistol Rules was changed slightly by the Executive Committee at its meeting in June.

The first is rule 10-10 which states in part that:

All shots fired by a competitor after he has taken his place at the firing line count in his score, even if the piece is accidentally discharged (unless the bullet fails to leave the muzzle of the gun).

This applies to all types of fire—slow, timed or rapid, so be careful in slow-fire that a shot doesn't get away from you while the stock is being "set" in the hand. A good way to prevent this occurring is to put your left thumb between hammer and frame so that should your trigger finger happen to contact the trigger you will not have an accidental discharge. The rules provide that revolvers are to be cocked in timed and rapid-fire only after the command "Ready on the Firing Line" so by obeying this command you assure no loss of points through a shot "getting away from you".

The change in rule 10-15 was found advisable due to the increased attendance at pistol tournaments. Under the former rule scorers frequently found it necessary to take considerable time at the close of each relay hunting up competitors to have them sign their score cards. This, of course, delayed the starting of the next relay. Under the present rule it is up to the competitor to sign his card before leaving either firing or target line as no protest will be allowed if he does not do so.

THE NEW INTERCOLLEGIATE PROGRAM

The ugly rumor that the National Rifle Association has discontinued the National Shoulder-to-Shoulder Intercollegiate Team Championship, the Rose Bowl event of college rifle shooting, is, like the report of Mark Twain's death, to quote that fine old gentleman, "greatly exaggerated." This match will, as usual, be conducted as a number of simultaneous regional tournaments, with the high team nationally designated as the new Intercollegiate Champion.

A shoulder-to-shoulder individual event will be fired at each of these regional tournaments to determine the National Individual Champion.

However, since college shooting has progressed to the point where teams are no longer having difficulty in scheduling a full season of matches, many of them shoulder-to-shoulder events, and since it is the policy of this Association to encourage such a procedure, the league postal matches have outgrown their purpose of furnishing these teams with enough shooting to keep them occupied. They have thereby been discontinued. In their place a single postal match has been substituted which will furnish the chance for teams to compare their ability with others too distant for them to contact, and which still will not conflict with already carefully prepared schedules.

Most of the usual matches, such as the Freshman Team; Women's Team; Men's Individual; Women's Individual; Club Members' Match; and Field Artillery R. O. T. C. Pistol Team Match will be conducted as in the past. There is one important exception, however. The men's course of fire with the rifle has been changed to include all four positions, sitting having been added.

Another important addition has been originated, namely a qualification course open only to college students. Information regarding this award and complete conditions of all matches may be obtained by writing to the Competitions Division of the Association.—C. R. ROGERS.

D. C. M. CLUB NOTE

When a rifle club requests shipping instructions for the return for replacement of unserviceable rifles or other equipment, such instructions MUST be complied with immediately upon receipt, as neither the office of the Director of Civilian Marksmanship nor the receiving depots can maintain open files indefinitely.

It is suggested that the club decide definitely, BEFORE requesting shipping instructions, that it wishes to return certain unserviceable property. Every year many sets of unused shipping instructions are returned to the office of the Director of Civilian Marksmanship by the various arsenals, thereby causing much unnecessary correspondence.

MUSEUM NEWS

Since the publication nearly two years ago of an article on the National Rifle Association's firearm collection, a number of fine pieces have been added to the arms in the headquarters museum, rounding out the series of evolutionary types as well as adding several historical pieces of note.

Most important was the acquisition last summer of the greater part of the collection of Major Jerome Clark of Ashburn, Virginia. The group includes a fowling piece by John Cosens, owned by James II of England during his short reign (1685-1688), a John Manton fowling piece attributed to the Duke of York, son of George III, a wheel-lock carbine of Pilgrim origin and a superbly decorated Italian presentation rifle, the stock carved with a representation of Venus and Cupid.

Other pieces received recently are a rare French repeating magazine flintlock gun, a flintlock shotgun that apparently was presented by Napoleon Bonaparte to the Marquis Faute de Vanteaux, a splendid pair of Italian snaphaunce pistols with carved steel mounts, an example of the rare 1807 Harpers Ferry military pistol, a number of 17th century matchlock guns originally in the Fortress Hohenwerfen, near Salzburg, Austria and, oldest of all the weapons in the collection, an example of the extremely rare Gothic crossbow, the bow itself built up of sinew, wood and horn. The type went out of use at the end of the 15th century. Our specimen probably can be dated about the time of the discovery of America.

In all, the collection has been increased by about fifty pieces. With each addition the collection presents a more complete picture of the evolution and development of projectile arms, with no small share of the romance that their historical associations can call up.

—so they tell us:

AGAIN, WE'RE SORRY

SIRS:

We boys from Montana would like to have you correct that part of the story ("Perry—1938," October issue) that concerns the winner of the Pope offhand match.

1. Stuart Edmonds, not Edwards, won the match.
2. He is a member of the Yellowstone Rifle Club of Billings, Montana, and not from Nebraska.
3. He does not use the standard military position when shooting offhand. The enclosed picture, taken in front of our tent at Perry, shows the exact position he uses.



Montana's Edmonds

4. You had the score right.
5. He is not a newcomer to the offhand win column at Perry. In three trips he has placed high in the Navy match twice and now this win in the Pope match on his third trip.

You had a poor reporter out there on the small bore range that day.

Billings, Montana.

GEORGE C. AUSTIN.

● A partial correction appeared in the November issue. Reader Austin, fellow club member of Edmonds, presents all of the facts of this win, nonetheless important though the military position was not used.—ED.

SIRS:

In the Camp Perry write-up, October issue, you state (page 16) that it is probable that Private Glanville, Md. N. G., was high individual in the National Team Match with a score of 98 at 1000 yards. Not to detract from Glanville, but one of our men on the Washington State Civilian Team made a 98 at 1000 also.

HARVEY O. SCOFIELD,

Captain, Washington Civilian Rifle Team.
Tacoma, Washington.

● The shooter referred to is Jalmer T. Homberg, whose score of 98 at 1000 yards at least equals Private Glanville's run, perhaps better it by virtue of concluding with 14 straight 5's.—ED.

SIRS:

In the October issue of THE AMERICAN RIFLEMAN you congratulated the California Civilian Rifle Team for finishing in fourth place, and said that this was the first time a civilian team had done so. In the War Department Bulletin of November 22, 1920, "Results of the National Matches," the Massachusetts Civilian Team is listed as having finished fourth, score 3294.

LT. COL. N. C. NASH, JR.

Boston, Massachusetts.

AMEN!

SIRS:

Yesterday I attended my first rifle shoot.

A friend of mine came down and we drove several miles south of here to get to it. We were lost most of the time but after inquiring at all the filling stations on the way and a few farm houses we arrived O.K. with the exception of our radiator boiling over and covering our windshield with a thick heavy coating of rust and old oil. Arriving at the range we parked the

rusty car along the highway and started climbing down a cliff to get to the range. Outside of slipping once and skinning my elbow and stepping in a small hidden stream with my best shoes on we arrived O.K. We were now in a cow pasture bounded on one side by high corn and on the other side the cliff, with rifles, blankets, tool boxes, etc., on the near side. I found three inches of room on the end of a six-inch board to sit on and watched several very serious fellows lay on their stomachs and point a gun at something I couldn't see down by the end of the cornfield. Every once in a while someone would shoot and the silence would be broken. Sweat stood on my face and ran down my back, as no air was moving. Sun burned the back of my neck. Mosquitoes stung my arms and chiggers chewed my ankles. Then in the grim silence came a change. The sun disappeared and it became a little hotter, then came the rain. Those fellows laid out there soaking up a downpour. Their pads were soaked, their clothing stuck to them, they were miserable, but the grim business of shooting went on. At last it's over. After gathering two good armloads of wet stuff and wading around in the mud and rain to gather up small parts spilled in the rush and climbing up a slippery, muddy cliff to the car they all go home to spend a few happy hours cleaning and oiling and drying and trying not to catch cold. We arrived home O.K., only the top leaked and all the kids cried.

Yesterday I attended my last rifle shoot.

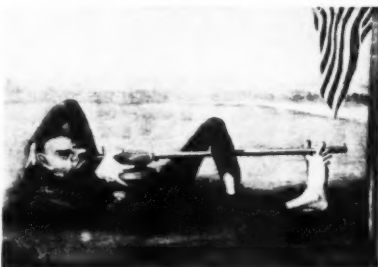
Lockbourne, Ohio.

J. R. VAUGHN.

1875 VS. 1938

SIRS:

After seeing the shooting positions displayed by John Wark in the November issue, I am moved to call your attention to the fact that



"E Pluribus Unum"



"Erin Go Bragh"

these grotesque stances are by no means new or unrivalled, though they may be original so far as Mr. Wark is concerned. If you will refer to the files of *Arms and the Man*, predecessor of THE AMERICAN RIFLEMAN, you will find the issue of October 23, 1913, headed by three that make Wark's but pallid imitations of the original.

Warburton, New York. HERBERT PRAZNER.

● Reader Prazner is correct. Nor can we even claim originality for the pictures as they appeared in "Arms and the Man." They were published in 1875 to commemorate the visit of an American team to Dollymount, England, where

we licked our British and Irish cousins, despite bare feet (see illustration). The prints from which the reproductions were taken were discovered many years ago adorning the walls of Hancock's, a famous old saloon of pre-War Washington.—ED.

WE CAN TAKE IT

SIRS:

I am moved to write you a note about what I think of the Rifleman. Frankly, I think it smells. Further, I have been a subscriber for 11 years and it gets constantly worse. I am a hunter and rifle nut. I am also a novelist, a sports writer, a short story writer, former news-



"The Queen's Own"

paper man and professor of journalism. I tell you this to let you know I know something of the writing and editing racket.

Well, anything about rifles is right up my alley, but most of the stuff published in the Rifleman is so terrible that not even I can read it. For God's sake, encourage some people who can write. And for the love of Pete, teach them to take pictures that have some interest. And the titles! Usually they don't say anything. They don't even say what the article is about. What, for instance, does "Vacation Echoes" say? Nothing! The vacation could have been spent making love to a French waitress in Venice for all of the title. I like Elmer Keith's stuff. Other stuff is interesting. Mostly however, it is so bad as to be almost incredible.

What you need, I think, is GOOD stuff on reloading, new rifles and cartridges, hunting stuff all of the way from woodchucks to elephants, with the accent on the rifle, developments in foreign arms and ammunition, interesting dope on old arms and their use. And all to be WELL illustrated.

The person who sold you on the new cover ought to be shot. The layout of the entire magazine is a lousy amateur job and the typography is worse than lousy. The Rifleman isn't made up—it's thrown together by a drunk printer, or so it looks. I used to read it from cover to cover. Now, as a rule, all I can get down is about one article and the ads.

Roberts has something to say, but you ought to retile his articles! Why not hire yourselves a good professional journalist? Washington ought to have plenty. I'll donate \$5.00 a year toward his salary myself.

Templeman, Arizona

PETER WARNE.

● What Reader Warne apparently wants is any good five-cent magazine. THE AMERICAN RIFLEMAN gratefully accepts his offer of \$5.00, however; will, in fact, give him a two-year subscription for it. No guarantee will be made as to the subsequent disposition of the five. Meanwhile, the comments anent cover, format, et al., will be considered a "reader-vote," though at variance with fully 90% of letters received to date.—ED.

ATTENTION, TANANA

The response to Tanana's letter in the last issue was both prompt and gratifying. Several letters already have reached us, and by the time this magazine is in the hands of the members, there probably will be others. Unfortunately, our failure to publish Tanana's real name was no matter of policy. We don't know it ourselves. Won't Tanana make himself known, or at least give us a mailing address, so that this mail may be sent to him?

Tournament Reviews

SEWICKLEY INVITATION POLICE SHOOT

By scoring 1113 out of a possible 1200, the Detroit Police Revolver Team came through for the third consecutive year to win the Fourteenth Annual Invitation Police Revolver Match held October 12 at the Stonedale Range. The model shooting ground is on the estate of sponsor Thomas Atterbury McGinley. A beautiful warm autumn day provided a perfect setting for the day-long match. Shooting started at 8:30 a. m., with the record string of 46 teams finishing well before dusk.

The McGinley Police Shoot, now the nation's largest strictly Police Competition, saw the Pennsylvania Motor Police Team No. 1 taking second place with a score of 1089 and the West Virginia State Police third place with 1081. T. E. Jones, of the Pennsylvania Motor Police Team No. 1, was individual high scorer with a 281, just nosing out Harry Reeves of the Detroit Team, who placed second with a 281, because of a lower score on the 25-yard rapid. Third place trophy went to Maurice LaLonde of the Detroit Team, who shot a 279. High score honors for Borough teams went to the Lower Merion Township Police, who shot 1068 x 1200. Brady Utz, of the Lower Merion squad, was high individual among the Borough participants with 279 x 300.

Officials in charge of the match included Lieutenant Colonel Benjamin W. Mills, U. S. Army, and executive officer of the National Board as executive officer, F. L. Wyman, F. A. Moulton, F. M. Hakenjos, E. F. Mitchel, Wade Johnston, and A. H. Barr.

SOUTHERN CALIFORNIA SMALL BORE CHAMPIONSHIP

"Doc" E. C. Hamley of Glendale, veteran of Western rifle ranges, is the 1938 Southern California small bore champion, after ousting Johnny Miller of Los Angeles from the position of title holder. Miller was winner for the two previous years. All of this transpired at the third annual firing of the Southern California Championship matches, October 8 and 9, on the range of the Glendale Rifle and Revolver Club, where a five-point lead gave Hamley undisputed precedence over the field.

Saturday morning, in the initial event of the two-day shoot, Otto Marckman of Pasadena romped home a winner in the 50-Meter Metallic Match. His 397 was a one point lead over Dick Burkhardt (by the way, entered as a tyro), and Hamley, who snared second and third awards. The Dewar Any Doubles went to the team of Otto Marckman and "Whitey" Deboer with a 796 total. The final match on Saturday's card, a "Palma Decimal," found Elmer DePew's 291 good for first, three points ahead of H. D. Zaring.

Sunday's events got off with a bang when Hamley slipped into his old stride to pace the Dewar Metallic with the only possible in the event. Johnny Miller landed in second position, one down, with Bill Ridings' 397 in third. George Rowell of Bell, California, outguessed wind and mirage for a 194 in the Wimbledon, with Elmer DePew's 193 and Forest Tackley's 192 under him in second and third. Short range aggregate honors went to Hamley, his score of 796 bettering Otto Marckman's by four points. A 791 total gave third to Miller. The Long Range Aggregate was Miller's by virtue of a shootout with Hamley, both of whom had fired a dead heat in the long range events.

The Inter-Club Team Match went to the Los Angeles Rifle Club's four, total 1582. Immediately after the club shoot, a 20-man California team fired over the Dewar Course in a postal match with similar teams representing Illinois, Wisconsin, and Alabama.

Much to the surprise and delight of Southern California shooters, Major-General M. A. Reckord of the National Rifle Association was appointed representative for the shoot. General Reckord was formally introduced to competing

riflemen by the Glendale Club president, Roy V. Hogue. The General then presented trophies and medals to the winners. A stirring and constructive speech was given over the range public address system, in which the General pointed out the importance of developing young shooters and the importance of all riflemen in our National Defense program.

Although attending as official observer, General Reckord has made many new friends in Southern California. His visit here has been a pleasure and honor to the shooting fraternity of this state. We trust that he will be with us again very soon. His undivided loyalty and constructive interest in the shooter's welfare will long be remembered among the shooters of Southern California.—WALLY ROBBINS.

SACRAMENTO VALLEY SMALL BORE RIFLE MATCHES

The first annual Sacramento Valley Small Bore Rifle Championship Matches at 100 yards were held on the Filtration Range, Sacramento, on October 16. Shooters were in attendance from Sacramento, Lincoln, Stockton, Fresno, Grass Valley, Antioch, Gridley, Acampo, Vallejo, Richmond, Napa, and San Pedro.

The sky was clear and the temperature 75 degrees. A north wind started blowing at opening time and continued all day. With that kind of choppy wind conditions are really tough on our range, where shooting is north against a 25-foot bank. The Mare Island Team, who have won about everything around here this year, couldn't get the right wind dope in the team match and came in behind Capital City No. 2 and Richmond Elks. The Team Championship was taken by the Capital City No. 2 Team, and Capital City No. 1 was the winner of Class B.

The Individual Championship, which was the aggregate score of both individual matches, was claimed by Sam Lear of the Mare Island Team, with E. Schwab of Capital City winning the silver award, and Dave Alves of Richmond in third.

Medal winners in the Metallic Sight Match on the 100-yard target were: E. Schwab and B. G. Simms, both of Capital City, and C. R. Inman of the Mare Island Team. Class B winners were E. Bryant and Kenneth Pritchard, both of Capital City, and Harry Hoff of Antioch.

Medal winners in the Any Sight Match on the 100-yard International Target were Sam Lear of the Mare Island Team, Bill Stephens of Capital City, and Esther Hull of the Mare Island Team. Class B winners were Dudley Hoskins, Capital City; Dave Kirschenman, Roberts Island Club; and C. B. Smith of Napa.—RAY MURPHY.

THOUGHTS FROM SAVANNAH

Three new records on opening day mark the first annual South Atlantic Regional and Georgia State pistol championships. Another record set the second day by aviator-pistol expert Lt. Chas. Densford, who flew in from Kelly Field, San Antonio.

Registrations exceeded all expectations, with 128 in for the first day, another additional dozen for the second, and closing out with 147 for the final day.

Lt. Col. L. H. Miller of the Marines, at Parris Island, South Carolina, was an active and affable executive officer. Good news around the range the second day was the word of his promotion to full colonelcy to follow at a near future date.

Captain Clancy and Smitty Brown, plus an efficient corps of workers deserve much credit for the promotion and carrying out of a great program, plus entertainment a la much heralded Savannah. Special seafood lunches—or perhaps dinners—at the range each evening, venison spread for team captains and officials one evening, and a grand finale with dinner, honorable guest, presentation of medals and trophies (a grand display of trophies, incidentally) and dance at the Shrine Country Club.

Back to the shooting—Harry Reeves of Detroit was the outstanding individual; winner of both the Georgia State individual—an aggregate over the first two days individual matches—and the South Atlantic Regional Individual—aggregate of all-around performance, once over the National Match course with .22, .38 and .45. Hemming's second place total was 834 as compared with Reeves' 842. Lee Echols, New York U. S. Customs officer was third—829 and Walter Walsh fourth—825.

The standing of these four and the see-saw among the lower three can be seen by their scores: Reeves was never out of first. In the .38 caliber Reeves picked off a 290; a 282 in the .22; and a 270 in the .45.

Hemming . . . 284—273—277 for an 832;
Echols 272—282—275 for an 829;
Walsh 286—277—262 for an 825.

These, in the same order of events as above.

Those new records—Reeves and Hemming established the most astounding total for center-fire doubles over the Camp Perry Course, Reeves—299, Hemming 298 for 597, a total of twelve points above the previous record held by Wm. Dale and Clyde Sayers, also of Detroit.

Lee Echols added one point to the center-fire timed-fire record, scoring 199. Garfield Huddleston of Ft. Benning, Ga., also joined in the attack on the old 198 record, carding a 199 also, but being outranked by Echols.

John Harmon of Panama City, Florida, set up an endurance record by firing 37 tens in a 25-yard slow fire match. The shoot-off to break the possible also included Harry Reeves and a "tyro," Robert Deyo, a Michigan state trooper who happened in on the shoot during his vacation in Savannah.

Lt. Charles Densford caught the spirit of Savannah competition in the second day—putting up a new all-time high score of 196 in the center fire rapid fire match. He thus robbed his shooting partner in the Southwest, R. F. Tate, of San Antonio who had held a 195 for some time, although it had been tied on several occasions.

In the team matches, the Miami police team had things pretty much to their liking. They won the City of Savannah Trophy match with center fire-guns over the Camp Perry Course; also the center fire over the national course. They lost out by a narrow margin of points to the Marines of Parris Island in the .45 caliber four man team.

Reeves and Hemming won all three doubles matches. H. W. Amundsen of Plainfield, N. J., was the only one to win a major (National Match course) event, aside from Reeves or Echols. This was the .22 caliber individual.

Heard more semi-boastful talk among the tyros around the range of having made their qualification scores: they were happy over having a definite goal attained, and having part in the tournament, even tho' the Hemmings and the Reeves and the Echols were out there winning the rest of the events.

NON-REGISTERED EVENTS

ILLINOIS—State Small Bore Championship. Robert Lafferty, the 17-year-old National Junior Four Position Champion from Aurora, Illinois, proved his versatility as a marksman by going clean over the most difficult small bore course ever used and taking the State Championship. His 700 with 31X's for 20 shots at 50 yards, 20 shots at 50 meters, 20 shots at 100 yards, and 10 shots at 200 yards, is a record that should stand for many years to come. And, of almost equal importance, his 200 yard score was a 10X possible and part of a string of 13 consecutive X's at that range, a fitting climax to his first year in competitive shooting.

Donald Wilson of the Commonwealth Edison Rifle Club of Chicago took second with a 698-32X. High X count went to E. H. Pierce of Blackhawk Rifle Club, Chicago, who garnered third place with 696—36X. E. K. Waters and Anthony Biagi came in for fourth and fifth. The match received the largest turnout of the year for Fort Sheridan Matches with 87 entering for the full day's shooting. Only 15 aggregate

medals were given, with Lafferty gaining possession of the Lord Trophy for one year.

This event closed the largest Fort Sheridan season in the history of its small bore range. We look forward to continued improvement next season in light of the increased efficiency of operation and improved range facilities.

Big Bore Activity—The State Association closed its Big Bore season with the Bliss Trophy Match at Camp Logan on October 2, and D Course Club Qualifications at Fort Sheridan on October 23.

The former event was won by the Illinois National Guard Team with 3254 for ten men over the A Course. Second place went to Great Lakes Naval Training School with 3247. The Illinois Civilians were third out of the six teams with 3244.

Fifty-three tried out in the Club Qualifications with 12 getting Expert rating and 20 getting Sharpshooter.—F. E. MORGAN, Jr.

CALIFORNIA—Legion rifle shoot. Though unfortunately held a bit too soon after Perry, the .30 caliber and small bore shoot staged by the American Legion Rifle Club of Burbank provided a stiff day of competition for those who did attend. The competition, in the persons of Vic Massie (winner of the Camp Perry .30 caliber Legion event), J. O. Miller, L. A. Pope, M. M. Heins, and several others of the West Coast's best shooting talent, made it tough for anyone else who hoped to take home any hardware. The foursome slipped into first place in every event on the schedule, including even the .30 caliber team match, the winning team numbering two of them among its four shooting members.

ILLINOIS-WISCONSIN—The 20-Man Dewar Team Match, staged annually between the neighboring states of Illinois and Wisconsin, was fired October 2 on the County Line Range, when the Illinois marksmen defeated the opposing group by a 14 point lead. The "trophy," a home-made affair of tin-cup-funnel-tin-pan construction, originally an award to the premier alibi artist of the Belle City Club of Racine, will be retained by the victors, who took it last year as well.

The scores of the match were counted also in a quadrangular match between four states, final scores being Illinois, 7909; Wisconsin, 7895; California, 7866; Alabama, 7756. The firing of the California Team was in connection with the Southern California Small Bore Championships at Glendale.—J. R. WEST.

PENNSYLVANIA—The York County Gun Club for the third successive year successfully put over the September 18 firing of the annual York County Shoot, with final reckoning giving the lion's share of honors to the strong Pennsylvania Motor Police group. The state officers not only clinched the first six places in the grand aggregate but won first places in all but two of the major events of the program.

The two events that fell to competitors outside of the Pennsylvania Police organization were those fired on the Colt Silhouette and on the newly designed Geesey "Anatomical" Silhouette targets. Both of them went to District of Columbia shooters, the first to J. B. Layton, the latter to C. F. Thompson.

The shoot, held on the range near Thomasville, proved to be the biggest open handgun tournament ever held in the Keystone state, with a total attendance of more than 70 coming from at least five states. Much of the credit must go to R. C. Geesey of the York Police Department, whose enthusiastic promotion of the pistol game in his state is responsible for much of its present popularity.

NEW JERSEY—Every shooter cannot go to Camp Perry. In order to remedy the situation locally at least, the Hutton Hill Rifle and Revolver Club decided to hold "Stay-at-Home" Matches on the weekends of Camp Perry and to have a variety of matches that would give competition in all kinds of shooting. The pistol shooting program consisted of three matches, National Match, Camp Perry Match, and a Slow Fire Match, and an Aggregate, the total of all matches. The rifle program was somewhat more

comprehensive. The first weekend matches were a Dewar and a Four Position Match at 50 yards. The next weekend of three days was given over to 200-yard shooting in two matches. The last weekend's shooting was on the International target in two 40-shot matches at 50 and 100 yards. The rifle aggregate was the total of all the matches fired during the three weekends.

In the pistol matches, H. V. Noble, the ace shooter of the Hutton Hill Club, took every first, including the Aggregate, with a total of 768. His 292 in the National Match, followed by 291 in the Camp Perry Course and a 185 at slow fire put him well in the lead from the very start. His nearest competitor was J. H. Chapman of Philadelphia with a 748 aggregate, 275 in the National Match Course, an outranked 291 in the Camp Perry Match, and a 182 in the slow fire shooting.

The rifle events were a different story. It was a nip and tuck fight from start to finish with a tricky wind that held for every weekend, taking a heavy toll at every stage. G. D. Shivers was the first man to register and promptly proceeded to take the Dewar Match with a 398 with 25X's to outrank Bill Wait's 398 and 14X's. G. Sylvester of Philadelphia took the lead in the four-position shooting with a 187.

The second weekend brought out the army rifle shooters with a sprinkling of Hornets and Kraggs. D. M. Carr of the Fort Billings Club led off with a service rifle and on the decimal target made the fine score of 188. Philadelphia came through again when E. J. Watson scored 189-3X with his .22.

The forty-shot matches were fired in a tricky wind that swung back and forth to give plenty of trouble to every shooter on the line. Ackley showed that he could dope the wind and held up the honor of the Philadelphia Rifle Club by getting a 390 to take first place. Joseph Andreoli, also of Philadelphia, shooting under the colors of the East Falls Gun Club, outranked Shivers' 382 for second place. Andreoli kept his eye on the ball and led the gang in the fifty-yard match with a 389 for the forty shots. The contest for the Aggregate Match was hot and heavy. Shivers took a good lead with his Dewar score of 398, but his four-position and long range shooting lagged behind so that after the second weekend his clubmate Hubbard was 8 points in the lead. In the 50-yard International Match they were even all, each with a score of 382. Shivers repeated his 50-yard score in the 100-yard International Match, but Hubbard fell to a 371, and Shivers took the Aggregate with a grand total of 1694.

And so endeth the Stay-at-Home Matches. A good time was had by all, and we believe the counterpart of Camp Perry, for those who can't go, is here to stay.—JOHN G. HUBBARD.

GEORGIA—From the pen of O. B. Keeler comes an account of the Macon .30 caliber shoot of October 15 and 16:

Seventy-nine riflemen—one of the largest and certainly one of the finest fields ever assembled in the state—fired in the qualification matches held last weekend at the Holton Range, near Macon, by the Georgia Rifle and Pistol Association. The contestants included members of the Georgia Civilian, Georgia National Guard, and U. S. Army Camp Perry teams who had fired in the greatest rifle competition in the world a few weeks before.

The Navy Match, Saturday afternoon, twenty shots offhand, 200 yards, was won by O. L. Gallman, Calhoun, with a score of 92 out of a possible 100. This won the handsome bronze King Hardware trophy. The "old men's" shoot, ten shots prone, 600 yards, was won by Amos Joshua Browning with a perfect score of 50 plus 6 bulls. Mr. Browning was awarded the McGaughey trophy. In the national match course, Mr. Gallman scored 243 of a possible 250—the highest score ever shot on the Holton Range. This carried the cash award. L. D. Cumming, Savannah, member of the Camp Perry team, won the Beck & Gregg civilian trophy with a score of 231.—Atlanta Journal.

HAWAII—Annual Double-Ten Pistol Tournament. Every winning score over the

previous high total in the ten matches was the record chalked up during the two-day program of the second annual Hawaii Double-Ten Pistol Tournament, fired October 1 and 2 on the Punchbowl Target Range, Honolulu, under the sponsorship of the Chinese Gun Club.

The Honolulu Police Team won the first match of the opening day with a score of 1106 for the four-man Camp Perry Police Course event with the .38's. The Oahu Rifle and Pistol Club turned the tables on the police in the .22 caliber four-man team to win the Leong Boo Jeweler Trophy with the high score of 1090. Their four-man .45 caliber team won the C. Q. Yee Hop Trophy Match and set the third record score for the national match course with 986.

The individual matches fired on the second day brought out five champions and seven new records for this competition. Sgt. Dale Frazier started the record-busting spree with a 193 for the center-fire timed-fire match, and by hanging on to a couple of second places and three fourth places in the rest of the matches, took the aggregate with a score of 1382 x 1500. R. W. Miller bettered his old score by three points to win the center-fire National Match with a score of 278. Lt. J. C. Drain, Jr., 21st Infantry, won the .22 caliber Timed-Fire Match with a score of 196; 1st Lt. H. G. Sparrow, 13th F. A., turned in a 285 for the .22 National Match to win; Capt. Richard Mayo, 11th F. A. Brig., dominated in the .45 caliber matches, winning both the Timed-Fire Match and the National Match with scores of 190 and 266 respectively.—SGT. D. T. W. YAB.

INDIANA—The Shelby County Pistol Team paced the twelfth yearly shoot of the Indiana Bankers Association, held September 25 at Fort Benjamin Harrison. All told, 211 entered the competition. The vigilantes from Shelby County, with an aggregate best three-man total of 399, won first team prize in the morning and went on to make a clean sweep of the team events by winning the rifle shoot in the afternoon with 182. Clarence Northam of Shelby County took individual honors by winning both the rifle and pistol stages with scores of 204 and 196.

INDIANA—The National Muzzle Loading Championships, thanks to E. M. Farris and a handful of others interested in reviving interest in the old-timers, turned in a record performance for 1938—a record both in the number of shooters who are turning to the old charcoal burners for relaxation, and in the number of records broken at this year's meet. One hundred sixty-four turned out for the matches, held at Rising Sun, Indiana, October 7, 8, and 9.

Best performances of the shoot were those of Lloyd Bender and Walter Grote. Bender's was a ten-shot possible with 9X's at 100 yards—not bad with any rifle, and doubly so when the event called for a muzzle loading rifle, prone, metallic sights. Grote, the muzzle-gun wizard of Canton, Ohio, bettered his own record in the Brockway Memorial Match by shooting a ten-shot group at 220 yards that measured just 9-15/16 inches, string measure. This was more than 3 inches clipped off of his former record.

NEW YORK—New long run at 1000 yards. Not so many years ago, 1921 to be exact, the Camp Perry story, published in *Arms and the Man*, began with the statement that "Long range shooting is in chaos," for that year Sgt. J. W. Adkins, Leatherneck team member, had won the Wimbledon with the incredible total of 71 consecutive bulls at 1000 yards. The next year, Camp Perry's matches were shot on a modified target in which a new innovation, the "V-ring," was present.

All of which leads up to the remarkable scores of two riflemen fired October 16 at Peekskill, New York. To begin with, Walter Shaughnessy, Roslyn Rifle Club member, sent 90 consecutive shots into the 5-ring to hang up a total that seemed far beyond the reach of any competing rifleman for a long time at least. The surprise of the day came when Sam Tekulsky, nominally a small bore shooting member of the Roosevelt Rifle Club, borrowed a rifle and scope from another competitor and proceeded to better Shaughnessy's record by piling 99 of them into the

target, finally going out on his 100th shot. Both Tekulsky and Shaughnessy used .300 Magnum arms.

CONNECTICUT—The Norwalk Rod and Gun Club held its first open small bore rifle matches on September 11. Fifty shooters turned out on a fine day to compete in the eight scheduled events. A. E. Sharp of the Outers Club, Mt. Vernon, New York, won both aggregates, and O. Kolb, also of the Outers Club, was the most consistent Class B shooter, taking first honors in his class in the metallic 50-meter and the any sight Dewar. G. Parkins of the Brass City Rifle Club, Waterbury, Connecticut, topped the Class C men in the same matches. I. S. Smith and S. W. Church of the home club won the two-man team event. The match was registered with the Connecticut State Rifle & Revolver Association, and, of course, the Connecticut classification system was used.

PENNSYLVANIA—Lehigh Valley small bore championships. With a strong tricky wind blowing and swishing the bullets about, Lawrence Bittner, of Germansville, topped a field of representative small bore shots of the East at the 7th annual Lehigh Valley small bore championships, fired October 1, over the range of the North End Rod and Gun Club.

Bittner, slight of build and very modest, calmly doped the wind conditions and between puffs of wind, which neared gale proportions on the hilltop where the range is located, managed to nose out his nearest competitor only by his steady holding, which gave him the advantage in X's. Bittner, a member of the Bear Rock Rifle Club, is employed as a machinist at the International Motors. Along with the title, he also takes possession of the beautiful Sears-Roebuck trophy, adding another name to the long list of winners engraved thereon. The matches were conducted by the Bear Rock Rifle team, the rifle branch of the North End Rod and Gun Club.

MINNESOTA—State handgun championship matches, fired September 24 and 25 on the Fort Snelling range, ended with the aggregate going to George W. Paine of St. Paul, whose total of 749 paced the entire field. A Tyro aggregate went to R. K. Sandager of Minneapolis and the State Individual Championship was won by G. H. Paris of Duluth, who scored 284 over the National Police Course. The Tyro State Individual fell to Fred W. Scott, Minneapolis, with a 270 over the course. Team matches went to groups representing the Reserve Officers and Border Patrol.

The Northwest Gun Club of Duluth had a most successful day, taking the Civilian team match and then going into the State Championship Team Match with 1066 x 1200 for first place. Team members were G. H. Paris, Arthur Arnston, E. J. Olson and J. Haughland.—C. B. MELROSE.

LOUISIANA—The Pelican Club of New Orleans for their fourth year put on a combined rifle and pistol shoot, this one held October 2. An innovation in this tournament was the scheduling of a tyro event in each class, which, to the surprise of the sponsors of the match, drew a greater number of entries than the open events. Of the 86 that competed in the tyro rifle match, E. M. Smith of Minden, Louisiana, came in for first with a 197 score for the 20 shots. The Dewar iron sight match went to W. H. Womack, Shreveport shooter and winner of many open events, for his 397 total.

The first of the pistol events fell to Ben Kellet with a score of 170 for the 20 shots, slow fire. The open event had a surprise finish when first place was taken by Charles Kinkaid, who that morning, in tyro status, won second place award in the Class B event.

COMING EVENTS

ARIZONA

*December 4: Pistol Association of Arizona Matches to be held at Phoenix. Sponsored by the State Pistol Association of Arizona. For programs

write C. Howard Hathaway, P. O. Box 71, Tucson, Ariz.

CALIFORNIA

*December 18: Southern California Pistol League Match to be held at Los Angeles. Sponsored by the Los Angeles Revolver League. For programs write Lt. J. A. Bartley, Police Headquarters, Los Angeles, California.

*December 18: San Francisco Traffic Revolver Monthly Match to be held at San Francisco, California. Sponsored by the San Francisco Traffic Revolver Club. For programs write E. J. Dutil, 324 16th Avenue, San Francisco, California.

FLORIDA

*March 8-12: National Mid-Winter Small Bore Rifle Tournament at St. Petersburg, Florida. Sponsored by the Florida State Rifle Association. For programs write T. F. Bridgland, 225 Fourth Street, North, St. Petersburg, Florida.

*March 14-18: National Mid-Winter Pistol Tournament to be shot over the Tampa Police Pistol Club Range in Tampa, Florida. For programs and match details write C. A. Brown, Box 253, Tampa, Florida.

MARYLAND

January 27-28-29: Second Annual Gallery Tournament to be held in Baltimore, Maryland. Sponsored by the 110th Field Artillery Rifle and Pistol Club. For programs write Captain Norval H. McDonald, 608 Medical Arts Bldg., Baltimore, Maryland.

NEW YORK

*January 21-22: Niagara Frontier Indoor Small Bore Tournament to be held in Buffalo, New York. Sponsored by the Buffalo Revolver and Rifle Club. For programs write C. M. Bickers, 187 Leroy Avenue, Buffalo, New York.

* Indicates Registered Tournament.

STOLEN GUNS

RIFLES—1 Winchester Carb., Mod. 94, .32 W. Spl. No. 1175415; 1 Winchester octagon bbl. Mod. 92 or 86, .50-100; 2 Winchester Mod. .03, .22 auto.; 1 Winchester, single shot, heavy bbl. curly maple stock and fore-end, .25-35; 1 Savage, Mod. 99, .38-55; 1 Savage, Krupp bbl. matted rib. Mod. 99T, .22 Sav. H. P.; 1 Springfield, sporter bbl. with Enfield trigger guard and magazine plate. Mod. 03, .30-06, rec. blued; 1 Krag, Cal. 30-40, 15982; 1 Marlin, curly maple stock and fore-end, Mod. 93, Cal. 32 Spl. L502; 1 Marlin, Mod. 39, Cal. 22, 815609; 1 Stevens, Mod. 70, Cal. 22; 1 Swiss army, Mod. 78, 197548.

SHOTGUNS—1 Fulton, double bbl., Ga. 12, 168859; 1 Fulton, double bbl. Ga. 16, 168344; 1 Winchester pump, Mod. 12 skeet, Ga. 20, 737156; 1 Ithaca, double bbl. Ga. 12, 150275; 1 Autom. made in Copenhagen, Ga. 12; 1 double bbl. shotgun, Damascus bbl., Ga. 12.

REVOLVER—1 Colt "Army Special", .38, 300872.

BINOCULAR—1 "Adar" made in Germany by Rodenstock.

MICROMETER—1 "1" Micrometer, Starrett. Notify Otto Neubrand, 311 Oak St., Buffalo, N. Y.

.38 Colt Army target revolver, No. 300192. Notify Eugene Seltzer, 138 West Main Street, Norristown, Penna.

Colt Police Positive .38, 398574; Colt Ace, 7144; Colt Woodsman, 6 1/2", 124205; another, 112954; .25 Colt auto, 402041; .38 Colt O.M., 609573; K-22 Outdoorsman, 663784; .38 Colt New Service, 345709; .38 S. & W. M. & P., 2", 668103; Colt Woodsman, 4 1/2", serial unknown. Stolen from warehouse of Thompson Hardware Co., Topeka, Kans. Notify E. C. Kieswetter.

S. & W. .38 Outdoorsman Target, sights blued, 53371; .22 Hi-Standard Automatic, Model D, blued, 34361. Stolen from Leo F. Shortsleeves, Montpelier, Vermont.

Stolen during September, 1938; Smith and Wesson .38/44 Outdoorsman, 41714. Notify Dr. T. C. Harper, 541 West 2nd Street, Reno, Nevada.

Stolen at Hartford Rifle and Revolver Club match, Farmington, Conn., October 16: Colt Woodsman, 6 1/2" bbl., special aluminum grips, 97990. Charles R. Gerlach, 18 Mallory Street, Danbury, Conn.

CHALLENGES

The Oneida Rifle Club desires postal matches with other teams in their class (about 1840-1860) under the following conditions: 50 feet, N.R.A. rules, four position, 10 shots each position, ten shooters with five high to count, any sights and scores exchanged. Contact H. P. Nodecker, Secretary, Kenwood Station, Oneida, New York.

The Belle City Rifle Club of Racine, Wisconsin, wants postal matches with rifle clubs, three positions, five high to count. Scores or targets to be exchanged. Address Wes Hansche, 2025 Taylor Avenue, Racine, Wisconsin.

Irvine Rod and Gun Club would like postal matches with any team in the United States who will permit 20 or more men to fire, scoring 10 highest. Fifty feet, any sights, 20 shots per man offhand or 10 each offhand and prone. Address S. E. Brown, Secretary, 417 East Street, Warren, Pennsylvania.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933

Of THE AMERICAN RIFLEMAN, published monthly at Washington, D. C., for October, 1938.

City of Washington, District of Columbia, ss:

Before me, a notary public, in and for the State and county aforesaid, personally appeared C. B. Lister, who, having been duly sworn according to law, deposes and says that he is the Managing Editor of THE AMERICAN RIFLEMAN, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher: National Rifle Association of America, 816 Barr Building, Washington, D. C.

Editor: Laurence J. Hathaway, 816 Barr Building, Washington, D. C.

Managing Editor: C. B. Lister, 816 Barr Building, Washington, D. C.

Business Managers: Executive Committee National Rifle Association of America, 816 Barr Building, Washington, D. C.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

National Rifle Association of America, 816 Barr Building, Washington, D. C. No stockholders.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; and also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is (This information is required from daily publications only.)

C. B. LISTER, Managing Editor.

Sworn to and subscribed before me this 7th day of Oct., 1938.

[SEAL] HELEN A. LOSANO.
(My commission expires Aug. 15, 1943.)

OBITUARIES

K. K. V. Casey. The Great Scorebook was closed for another of that little group of long range riflemen who not only made American shooting history but who had much to do with the remaking of the American arms and ammunition industry, when Major K. K. V. Casey died at the Homeopathic Hospital in Wilmington, Delaware, on October 18th.

Never willing to accept the established order of things until his own investigation had satisfied him of the merits of existing practices, Casey was constantly experimenting and urging experimentation in everything having to do with the shooting game. In his younger days an ardent and intelligent handloader, Major Casey remained to his death a proponent of the theory that the encouragement of intelligent handloading was beneficial to the game as a whole. He was largely responsible for the square bullseye experiment which was tried at Camp Perry several years ago. While a firm believer in the necessity of training and individual marksmanship, he viewed this as an essential first step only, and the original Infantry Match musketry problem as fired at Camp Perry was based largely on his suggestions.

His interest in small arms originated in his experiences as a member of the 71st New York Regiment in the Santiago Campaign in Cuba. He was a past master of the vagaries of the Krag at long ranges, and his endless experiments with the effect of wind velocities and temperature and humidity changes on the Krag and its ammunition served him well when the Springfield came into being as the principal National Match target arm.

Major Casey was a member of the Palma Teams of 1902, 1903, 1907, 1912 and 1913. He was Team Captain of the Palma Team in 1923. He was a member of the American Olympic Team in 1908. He won the Wimbledon Cup in 1902, 1907 and 1908, the only man to have accomplished this feat since the turn of the century. In 1908 he also won the Leech, being the only modern rifleman to have won the Wimbledon and the Leech in the same year. He won the National Individual Military Championship of the United States in 1903, the Spencer in 1904 and the Thurston and Hayes Matches in 1905.

His long practical experience as a shooter and his restless study and research enabled him to contribute a great deal to the development of boat-tail ammunition and progressive burning powders. He was one of the earlier proponents of the gilding metal-jacketed bullet as a means of eliminating the once familiar but now almost unknown cupro-nickel fouling.

As a team coach, Major Casey had few equals. He entered the service of the DuPont Company in 1905, having attracted the attention of Colonel J. G. Ewing, then the head of the Rifle Smokeless Division. By a strange trick of fate, Colonel Ewing's death was reported in the November issue of *THE AMERICAN RIFLEMAN*, concurrently with the notice of Major Casey's death.

Major Casey worked in the Smokeless Powder Operating Department until 1911, when he was transferred to the Military Sales Department, under the late Colonel E. G. Buckner. He became manager of the Rifle Smokeless Division of the DuPont Company in 1914. At that time a Major in the Pennsylvania National Guard, he took his battalion of Infantrymen to the Mexican Border, resigning his commission when the outfit was turned into a Field Artillery Regiment.

Throughout the World War his services to the DuPont Company and the War Department were invaluable and in 1921 he was appointed Director of Military Sales.

He was a long-time Director of the National Rifle Association and member of the National Board for Promotion of Rifle Practice.

A little known side of his character was his interest in music. He played the flute and bassoon and was an active member of the Wilmington Symphony Orchestra.

Despite a painful infection growing out of an ingrowing toenail, Major Casey attended the meeting of the National Board for Promotion of Rifle Practice at Camp Perry during the National

Matches this year. He was hospitalized shortly after his return to Wilmington, and it was soon found necessary to amputate one leg just below the knee. He rallied and appeared to be on the road to recovery following the operation, but the infection had spread too far and he died shortly before 11 P. M. on October 18th.

Funeral services were held in Wilmington, but interment was in the 71st Regiment San Juan Burial Plot at Mt. Hope Cemetery, New York.



K. K. V. CASEY

From a photograph taken about 1909

Mrs. E. C. Crossman. Over the last High Pass of The Great Divide has gone one of the finest characters in the whole history of American shooting. A keen, capable, out-of-doors woman and hunter, Blanche Crossman was at the same time primarily a home-maker and devoted wife and mother. One of the nation's top-flight shots both in the game field and at targets, she was also one of the West's better known musicians. She possessed to an amazing degree that unusual quality of being essentially and fundamentally feminine, yet being able to mingle with men on the firing line and in the hunting field on a friendly, man-to-man basis—a combination which made her universally welcome, universally admired from the music salons of Hollywood to the Club House at Sea Girt and the ranch house in Oregon. She sang as a soloist and in the choirs of many churches and was the leader of several choirs. She was well known in the concert field and sang for years over the major Los Angeles radio stations.

She broke into the shooting game at a time when it was supposed to be a "man's game" and shot her way onto the first American Dewar Team that competed over the present 50 and 100 yard course—that was at Caldwell in 1919. At Detroit in 1937 she tied for the Women's Skeet Championship but dropped into second place on the shoot-off.

Prior to the World War she had made several foot and pack trips into the "back country" in Oregon as well as at least two trips into the lower California sheep country.

Returning from a dove hunt near Palm Springs, California, on Saturday, October 15th, the automobile in which she was riding was struck broadside by a truck during a blinding dust-storm. Mrs. Crossman suffered a broken neck. For several days there was hope that surgical skill and her great heart might pull her through to eventual recovery, but she died in the Good Samaritan Hospital at Los Angeles on October 21st.

John W. Harrington, for many years an official of the Harrington & Richardson Arms

Company, and the man responsible for many of the features of the now popular line of H. & R. target revolvers, was found dead of a bullet wound October 17th, at his home in Worcester, Massachusetts. A pistol was found in his hand. He was 58 at the time of his death.

Mr. Harrington was actively associated with the beginnings of the company. He was the son of its founder, Gilbert H. Harrington, and brother of Edwin C. Harrington, who survives as the president of the company.

Mr. Harrington was not particularly active among shooters, as far as attending tournaments, but in his occasional contacts with the pistol game he became one of its best liked personalities. His entire life was spent in an atmosphere of burning powder. At 17 he gave up school, entered the business which his father, Franklin Wesson and William A. Richardson had started in 1871. Since 1921 he had held office as treasurer of the company.

Frederick A. Jordan. Although not widely known by name, every shooter and outdoorsman in America is familiar with Fred Jordan's wide-flung accomplishments in wildlife restoration, accomplishments that will go far toward ensuring an adequate supply of furred and feathered game for the generations to come. Through his work with the Peters Cartridge Company, as vice president of the agency which has handled the Peters advertising in recent years, he became intensely interested in the future of game shooting in the United States, and devoted much of his life to his self-chosen endeavor.

On his own time and at heavy personal expense Jordan threw himself into the job. He worked tirelessly for years, helping establish an appreciation among sportsmen of the necessity for a well planned program of wildlife restoration. He was the activating head of the whole program for National Wildlife Restoration Week, which was observed so enthusiastically throughout the country last spring. He was personally responsible for the wildlife stamps sold so extensively to aid in building up a special fund for the continuation of this fine work.

Due largely to his hours of strenuous effort in promoting this work he suffered a severe nervous collapse and retired to his country home in Connecticut, where he passed away suddenly and quietly early last month.

Kenneth Fuller Lee. To all who were readers of the outdoor and shooting articles bearing the by-line of Kenneth Fuller Lee, the news of his death will come as a shock. But 44, Mr. Lee was stricken with a heart attack on August 11 as he practiced fly-casting near his summer home at Lake Maranacook, Maine, preparatory to his expected entry in the Maine Guides Casting Tournament.

Mr. Lee was well known to *AMERICAN RIFLEMAN* readers through the numerous articles included in the magazine, most recent of which was "Spring Bear on Bald Mountain" in the February issue. His other writings included material which has appeared in nearly every outdoor magazine, a newspaper column, "Outdoor Maine", and a book on firearms, not yet published.

For years a Maine resident, Mr. Lee made a serious study of the conditions and the needs of Maine in regard to game and worked industriously for laws that would protect Maine sportsmen and assure their game supply in future years. His was a fortunate combination of interests. He was himself a true sportsman, interested in every branch and skilled in many. Being as good a cameraman as a rifleman, he looked at wildlife from both angles—that of the hunter and nature-lover. His past training as a newspaper man added to his splendid qualifications as an outdoor writer.

Shirley K. Breese, 49, died suddenly at his home in Shippensburg, Pennsylvania, September 18. Mr. Breese was one of the organizers of the Chambersburg Pistol Club and one of its most active members. During the past year he served as secretary of the Cumberland Valley Pistol League, which he also was active in organizing. Having been prominent in shooting throughout the Cumberland Valley, he will be missed by a host of friends thus acquired.—WILBUR H. OVERCASH.

DOPE BAG . . .

Conducted by F. C. NESS

The .220 Swift on Big Game. Without any encouragement from its makers, who very properly recommend the .220 Swift only for varmint shooting, it has been successfully used on all American game excluding only elk and Alaskan Brownies. This survey includes Mexican big game and Scottish Stags on which latter the .220 Swift proved very effective with Smith Custom Loads. On American elk it was only 50% successful.

J. B. Smith reported the instantaneous killing of a Vermont black bear by the shock imparted by the impact of the small Swift bullet on the bear's hambone alone. We killed a Texas white-tail at over 300 yards on a high shoulder shot with the .220 Swift, and reported more than two dozen other successes with its piffing missile on deer, the very first season. Most of these effective results were obtained at reasonable ranges free of intervening brush, but many kills were made at fairly long range and a couple of them made through thick brush were included in our report (published in the Dope Bag, March 1937).

Walter F. Day, official of the Seattle Police Revolver Club, has adopted the .220 Swift for his annual big-game hunt in British Columbia. He loads it down to 3200 f.-s. to avoid excessive destruction on deer, and says none hit has run over 33 yards. At 125 yards, he tried the Western 48-grain on moose hitting high behind the shoulders and dropping it dead. Bullet "exploded" on hide but blew out 3 inches of backbone, leaving a cavity. Similar effects were obtained on a 220-pound mule deer hit low, broadside, at 100 yards, and making a 2-inch hole. Both were in thick brush.

Up to this time practically all reports have praised the killing power of the .220 Swift on species for which it was not intended. We have tried to keep open-minded in the matter, but we continue to recommend this caliber for varmint shooting and not for big game, all evidence to the contrary notwithstanding. To back us up, comes a letter from Donald S. Hopkins, who speaks from experience as a big-game hunter but who gives only opinions on the .220 Swift which he has not put to the actual test. His long letter is quoted, in part, immediately following:

"It is with considerable concern that I notice the seeming attempt of the American Rifleman to encourage the use of the .220 Swift as a Big Game Rifle. Whether this encouragement is deliberate or whether it is merely due to the desire of the editors to give a fair hearing to the views of the admirers of this new ultra high speed caliber, I do not know.

"My belief has always been that the American Rifleman has had as one of its chief aims the sponsoring of clean killing of big game and the use of cartridges of adequate power to accomplish this purpose under all conditions, and to avoid the wounding of game animals and needless suffering.

"I have never used the Swift as a big-game rifle, but have had some experience in practical ballistics and killing power in the game fields of North America, and I doubt if the .220 Swift will prove adequate for big game under any conditions except certain ideal ones at fairly close ranges.

"Let us consider the use of the Swift at close ranges. In this situation we generally find our game in a brushy country where the bullet may encounter numerous twigs or sticks. Under these circumstances it seems that the Swift will frequently blow up badly if it hits brush or twigs, and will fail to penetrate or deliver the energy that is necessary to kill game cleanly. Recently one of my friends shot at a crow when it was shielded by a few pine needles and twigs. The distance was about sixty or seventy-five yards. He told me that the bullet had reached the crow as if it had been a shotgun charge. Both legs of the crow were broken, the neck broken, and the body was perforated by numerous small pieces of bullet. If a deer had been shot at under like conditions, the .220 Swift would certainly

not have killed it quickly so that the hunter could have secured the animal.

"Last spring I was forced to shoot at a grizzly through a screen of willow brush, notwithstanding that my own experience and the words of my guide counselled against taking the shot at the bear in that position. The distance was not over sixty or seventy yards. Although my front sight centered the bear's shoulder when I pressed the pin, the bullet was deflected considerably by the brush, in spite of the fact that I was using a .276-Dubiel, 170-grain bullet, which bullet has excellent sectional density. The bullet hit the bear just under the backbone, penetrated from a point a foot to the rear of the shoulder forward, and came out of the top of the neck, killing the bear almost instantly. Under those conditions, I question whether the .220 Swift would have performed adequately and killed the game, because it would probably have broken up to a great extent on the brush before reaching the bear.

"The only deer I ever hit and lost, escaped, I am convinced, because my bullet was deflected from its point of aim or shattered by brush. The deer was running almost broadside at a distance of about fifty yards through thick brush. When the trigger of the Springfield was pulled, the front sight was resting on the front part of the animal's shoulder. The 150-grain bullet staggered the deer, but he recovered and got out of sight without giving me a chance for a second shot. I have always felt that too light a bullet traveling at too high a speed was responsible for causing needless suffering and killing a fine game animal uselessly. I was almost positive that this bullet was deflected or badly broken up by brush. If this bullet intact had hit the buck anywhere in the shoulder or lung cavity, he would not have gone off wounded to die. After that unfortunate experience I determined never to use a light high speed bullet in brushy country again.

"Ask my friends Elmer Keith, Ray Mustard, Earl Olmstead, or Andy Simons, or any of the boys who have lived in game countries all their lives, and have seen many hundreds of heads of game killed. Every one of them will tell you that, for brushy country, the most reliable bullet is one of fairly heavy weight that does not travel too fast, because a light fast bullet is too apt to break up if it hits a twig. Charlie O'Neil even refuses to make up his .250 O'Neil as a big-game gun because he feels that it is not effective as a big-game cartridge on account of its very lightweight, high-speed bullet. George Ball, of Telegraph Creek, told me that he had once shot five shots from a .250-3000 rifle at a bull moose which was screened by some frozen twigs. After that the moose walked into the open, and he killed it by shooting it in the neck. The only bullet hole in the moose was the hole in the neck.

"The Swift is designed to break up quickly on impact so that it will not glance readily. If a bullet like a .250-3000 Savage can be shattered by a few twigs, or if a 150-grain Springfield bullet or even a long slug, like a 170-grain, .276 Dubiel, can be deflected, is it not reasonable to assume that a short 48-grain bullet traveling at a velocity of 4000 feet a second will be so readily shattered that it will not prove to be a generally reliable game cartridge in brushy country? My experience and that of my friends leads me to believe that such an assumption is correct.

"Let us now examine the ability of the .220 Swift as a big-game killer in open country. The average shot in open country at sheep or goat or caribou or deer, will, I believe, be taken at close to two hundred yards or better. Fully half of the game heads hanging on my trophy-room walls were shot at over two hundred yards. What is the velocity of the Swift at this average, open-country, game-range? It is not this ultra-high velocity of 4140 feet per second that the Swift followers boast about. It is just 2760

feet per second. Now, I cannot conceive of a 48-grain bullet traveling at 2760 feet per second being such a whale of a killer on big game. At this same distance of two hundred yards the 180-grain Springfield bullet is traveling about 2300 feet per second although it started at only 2720 feet per second. I really think the boys are rather optimistic when they state that a 48-grain bullet at 2760 feet per second is equal in killing power to a 180-grain bullet at 2300 feet per second.

"When Randall Mattern and I used to shoot together, he always insisted that it was not the initial velocity that counted when one considered velocity in relation to killing power, but that it was the velocity at which the bullet was traveling when the game was struck that counted. That is where the Swift bullet falls down in open country. It does start with terrific speed, but on account of its shortness, lightness, and poor sectional density, it loses this speed so rapidly that its potential killing power is not very great when it reaches the spot where the game is.

"In our camp on the Teslin River, Lou Decker yanked me out of my tent at six o'clock one morning and pointed out a big bull caribou. Had I been carrying a .220 Swift, I should have been forced to try to kill that caribou by hitting him with a 48-grain slug traveling about 2300 feet per second; for that caribou was three hundred and thirty long paces away. It was a good thing that he was being hit with 180-grain slugs boring into him at about 2100 feet per second velocity.

"I wonder if that big bull moose in the Cassiar would have stopped if I had been peppering him with (2550 f.-s. velocity) 48-grain bullets as he ran along that draw just at dusk about two hundred and fifty yards away from me? I doubt it, don't you?

"Don, I don't believe he'll go 43 inches, but I'd bet he's over 42 inches," Ray Mustard whispered as we peeked over a high ridge on the Blackstone River at an old ram and his bunch of Satellites. When a couple of .276 Dubiel slugs that weighed 170 grains hit him at a speed of 2300 feet per second, he waited right there until we put the tape on him to find out. Maybe that head would be in the taxidermist shop now if I'd had to stick a couple of 48-grain, 2500 f.-s. pellets into that old ram, but I would not bet much on it.

"I once killed an old billy by watching my bullet make dust puffs below his hoofs in the slide rock. Then by holding higher and higher, I finally hit him with a 180-grain, .30-'06 bullet and killed him. Since my gun was carefully sighted point blank at two hundred and fifty yards, that old goat must have been well over four hundred yards away. I am sure that a 48-grain, .220 Swift bullet out at that distance where it was traveling only about 2000 feet per second, or less, would not have bothered him much.

"Therefore, I must conclude that the .220 Swift is not a good big-game cartridge under average conditions in open country. It may well be that the .220 Swift is a fine killer on big game when the game is close at hand and in the open, when the velocity of the bullet is still very high, and when there is no brush to interfere with the bullet. However, my own experience leads me to believe that these ideal conditions do not happen very often in the game fields of North America, and therefore, I must conclude that the .220 Swift is not an ideal big-game cartridge since it is not effective under average hunting conditions.

"I have killed about eighty head of North American big game with a .256 Mannlicher, a 7-mm. Mauser, a .300 Savage, a .30-30 Winchester, a .30-'06, a .350 Magnum, and a .276 Dubiel. Outside of polar bears, walrus, and antelope, every variety is included.

"I am a great believer in high velocity in order to secure flat trajectory, but this high

velocity isn't much good at the muzzle only. It's got to remain high out at two or three hundred yards to be effective in killing. My idea of a bullet for our medium or small North American game in open country is a bullet of about .2845 inches in diameter (7-mm. caliber) weighing about 160 to 170 grains. It should start at a muzzle velocity of about 3400 feet per second. Then at two hundred yards it would still be traveling approximately 3000 feet per second if the bullet is well shaped, and at three hundred yards it would have a remaining velocity of about 2800 feet per second. At that distance it would have a velocity of 360 feet per second more than the .220 Swift and the bullet would weigh over three times as much. Now I believe that is what a real high velocity North American big game rifle should be. If I can ever procure that rifle, I'll stick to it for big-game hunting above timber line.

"Such a bullet would be fine for open country. However, I am sure that a 180-grain bullet or 200-grain bullet of the same caliber traveling not over 2600 or 2700 feet per second would be a more reliable bullet in a brushy country.

"In view of the facts, let us not go overboard on the Swift as a big-game rifle suitable for all conditions, but class it where it belongs as a most excellent cartridge for small game and pest shooting. The last thing to be done by anybody is to encourage the use of cartridges of inadequate power on our game."—DONALD S. HOPKINS.

The very same month we received a letter from Wilbur Gallinger, of Alberta, Canada, which reported some long-range antelope killing with the .220 Swift. They were poorly hit at an average range of 400 yards, but the small .22-caliber bullet kept them down. Mr. Gallinger's letter follows, in part:

"Last fall they opened the season for a couple of weeks on antelope in Southern Alberta, so I went down to have a whirl at this, to me, new game. Took the standard Model-70, Winchester .220 Swift along for a rifle. Have a Zeiss Zielklein in Redfield mounts on it. While it makes a fine glass in the bush can't say I was overly enthusiastic about it for antelope at 400 yards. Will take the heavy rifle and Super-Targetspot next time.

"Must say that the .220 Swift more than lived up to expectations, as both of my antelope were killed at long range and in a stiff wind, one just over 400 yards and the other just under. Both were sloppily hit, too far back, but went down pronto and stayed down. Was using the Sisk 55-grain and 38.5 grains of 4064 with graphite wad. This bullet seems to delay opening just about the right amount for bigger game but doesn't seem to give a very satisfactory 'burst' on crows."—WILBUR GALLINGER.

TRADE DOPE

Quick Sight Gauge for adjustable Colt front sights was sent in by J. O. Lewis of Spring Street, Catlettsburg, Ky. A spring clamp, operated by the thumb and two fingers of one hand, allows it to be quickly slipped over the front sight, and it holds itself. A glance at the check mark on its face plate gives the shooter the important information at once.

The check mark is obtained by marking the face plate, with knife blade or scriber, after carefully adjusting the front sight for the chosen load at the chosen range. A mark for 50 yards can be supplemented by another for 25 yards or any shorter range. The face plate is divided in the middle so that separate marks can be used for two different calibers. The two columns are stamped ".38" and ".22" for this purpose. Extra face plates make it possible for two shooters to record their individual adjustments for the same gun or for two different Colt revolvers.

The face plate contacts the face of the front sight and the horizontal line is scratched opposite the top of the sight once properly adjusted for a permanent record. The same exact check on Colt elevation adjustments can be obtained with a mike, but the latter is too slow for use on the firing line, whereas the Lewis gauge is quick enough to prove practical between strings, i.e.,

when moving from 50 yards to 25 yards in a match.

Another Portable Bench Rest is commercially available at \$18.50, complete with seat and packed for shipment at San Francisco. This is the Northwood model, made of wood, adjustable, foldable and equipped with a permanent handle for convenient carrying. It weighs slightly under 20 pounds. It will be furnished by Fred Mielke, Jr., 60 Corona Street, San Francisco, Calif.

Newcomb Portable Bench Rest is now made of aluminum and weighs about 22 pounds. Our own Newcomb is the original made of scrap iron and twice as heavy. We have found it serves well for two-hand revolver shooting with center-fire revolvers. The .38 Special gave better 50-yard groups from this rest than it did from our machine rest. Our five-shot groups were good enough to definitely distinguish good loads from the fairly accurate, and the latter from the poor. Sold by H. S. Newcomb, 58 State St., Vineland, N. J.

New Technical Books and bulletins of 1938 are listed by the Chemical Publishing Co., 148 Lafayette St., New York City. Complete lists are available by writing to the address above. Some of possible interest to N.R.A. members are: "Technology of Solvents" by Dr. Otto Jordan, a \$10.00 book, "Utilization of Fats" at \$6.00, "Metal Coloring and Finishing" at \$5.00, "Steels for the User" at \$8.50, "Chemical Analysis of Metals and Alloys" at \$6.00, "Light" at \$2.50, "The Elementary Principles of Lighting and Photometry" at \$4.25, "Optical Measuring Instruments" at \$7.00, "Applied Optics" at \$6.00, "Principles and Practice of Lubrication" at \$7.25 and "Technique of Modern Welding" at \$6.00. There are also a number of Monographs at \$1.25 each, and of Technical Bulletins at \$1.00. When writing for these lists ask about their group offers.

Custom Jackknife for outdoorsman is made entirely of Chrome-Vanadium tool steel, by A. C. Cornelison, Scottsboro, Alabama, at \$6.50. There are sticking and skinning blades, $\frac{7}{16} \times 1 \times 3\frac{1}{2}$ inches. Length closed, $4\frac{1}{2}$ inches. Weight, 8 ounces; number of parts, four. Alloy, 100-point carbon steel with .20 vanadium and 1.40 chromium. Purpose of design, great strength, durability and reliability for explorers and other outdoorsmen who must depend on their pocket knife miles from sharpening points.

Leather Arm Cuff for the shooting sling has come in from Ray L. Funk of the Speed-Clip Company, 2217 Harding Avenue, Detroit, Michigan. It will also be available from Richard Stam the check-rest man of Rochester, New York, who was its co-developer. Price, \$2.00. It is closed about the upper arm with a small buckle. The sling passes through two metal "D" loops, but not around the arm, and this one requires no sling cutting. In the loops it resembles the J. D. Buchanan arm band.

Hickory Cleaning Rods, smooth, round, tough and flexible, are available, in different lengths and calibers, from Lorin Granger, Weyerhaeuser, Wisconsin. We have used one of the smallest and most limber in our .22 rifles for some time, and find them O. K. when the patch is small. A tight cleaning patch requires a rigid rod. Our principal interest in these hickory rods is for long muzzle-loading rifles. They can be had over 40 inches long at \$1.00, up to 40 inches at \$0.75, and up to 28 inches at \$0.50 each. All calibers from .22 to .45, inclusive.

Simplified Ballistics. A free circular from Sportsman's Scientific Service lists the muzzle

and 100-yard velocities of typical ammunitions, from the .22 Lovell to the .45-70. It also suggests a very definite and accurate method of determining elevation angles by targeting, and it tells how velocity can be determined by such simple shooting methods. More importantly, it lists all the Universal Ballistics Charts which are available (75 cents each) from the above firm. These cover the determination (for all loads) of trajectories, time, elevations, windage, bullet buoyancies and coefficients, respectively, in addition to those previously mentioned.

Upon my suggestion Mr. Geist has charted the square root, to save the amateur mathematician from the troublesome process of extracting the square root, with which necessary step ballistics computations are commonly involved. As a consequence, I now feel that I can freely recommend his muzzle-velocity chart to the average rifleman.

Yankee Specialty Tools. W. Rohrbacher, 851 E. 6th Street, Erie, Pa., is the successor to the Yankee Specialty Co., formerly of the same city. He has favored us with a list of his products and services. Special or custom work is featured. Standard products include: a vertical reloading tool, Model "C", at \$8.00 for one caliber and \$3.00 extra per added caliber; a heavier (16 pounds) Model "D" reloading tool at \$17.00 for one caliber and \$3.00 extra per added caliber; single-cavity and double-cavity bullet moulds, \$3.00 to \$6.00; dies for making gas check cups, \$4.50; full-length shell resizing dies, \$2.00; bullet lubricators, \$5.00; bullet resizers, \$2.00; bullet swages, for increasing the diameter or changing the nose shape of jacketed bullets, \$6.00. Get his circular.

Speed Safety for M-54 Winchester is made to order (about \$5.00) by H. B. Reagan, Big Spring, Texas. Its purpose, once properly assembled, is to provide the hunter with a fast, "touch" safety, operable while grasping the grip and trigger, in anticipation of a sudden shot at unexpected game. It might fill the bill for this particular purpose on one of the old model Winchesters. The best buy we've seen for the new model Winchester (M-70) is the Tilden Ideal Safety at only \$2.50. Under our scope sight it has proven to be as convenient as any tried.

Cole Sling Keeper is neat, compact, sturdy and adjustable to all $1\frac{1}{4}$ -inch slings. It is clamped securely by a turn of a wide, flat thumb-screw without marring effect on the leather. This Cole Sling Keeper is a new one in black-finished metal at \$1.00. Very similar to another screw-held keeper already on the market. Made by Cole Products, 132 North Riblet Street, Galion, Ohio.

Swivel and Stationary Base vises, of the same quality as their 3M and 4M All-Angle Vise but at lower cost, are now manufactured by Fray-Mershon, Inc.

New Potter Reloading Machine has been received from the Potter Engineering Company. It is a modification of their Duplex Reloader in .38 Special caliber, and it automatically seats primers by the action of the sliding head. The standard model with a hand lever for separate seating of primers will be continued. The new one will cost \$40.00 with powder measure.

Free Booklet on Shotgun Cleaning is distributed by Parker Hale Ltd., Birmingham, England, and their American dealers. Some very fine cleaning equipment is shown for all gauges. I have been using a fine Parker Hale shotgun rod in 12, 16 and 20 gauge since 1931. Good Parker brushes too.

GET A .22-3000 LOVELL FOR SPRING

Your .22 Hornet Converted by Griffin & Howe

START now and get in on the finest long-range woodchuck or coyote shooting of your life, with your .22 Hornet converted to .22-3000 Lovell calibers. The tops of high-power .22s. Superb accuracy. Exceptional resistance to wind drift. Have us convert your M70 or M54 Winchester .22 Hornet or M1 Springfield .22 Long Rifle. You'll have a magazine rifle with match rifle characteristics. High class work only. We rebarrel and restock if and according to your wishes. We supply custom loaded .22-3000 Lovell cartridges, or the components and reloading tools. Write us now.

GRIFFIN & HOWE, INC.

Makers of Fine Rifles, 202-R East 44th St., N. Y. C.

FINE "WANTED" GIFTS from KING

There are no finer guns, for gifts or personal purchase, than the Super-Target Woodsman, and the Super-Target King-Colt and King-S. & W. Revolvers. Ventilated Ribs, Reflector Red Bead Sights, Micrometered "Click" Adjusting Windage and Elevation Auto-Locking Rear Sights. Magazine Adjustable Balancing Weights on Woodsman, with Hand Honed Actions and Trigger Slap Screw. Less expensive gifts of highest quality and usefulness—Ramp Reflector Sights for sporting rifles of all makes, and the super-fine King "Cockeyed" Hammers. Send orders by airmail or send 10 cents in stamps for new 56-page catalog "A."



KING GUN SIGHT CO.

171 Second St., San Francisco, Calif.

for a Merry Christmas and a HOBBY NEW YEAR



All-Purpose MOTO-TOOL

Moto-Tool makes an attractive, practical gift every craftsman will appreciate—for no other motor-in-hand tool in its class matches Moto-Tool in speed, power, ease of handling or in exclusive construction advantages that provide long trouble-free service. Moto-Tool does in seconds jobs that require hours of hard hand work. Handles all accessories, works on all materials, runs on A. C. or D. C. Absolutely safe. Thousands in use. Model 1, 6 oz. 25,000 r. p. m., for light work. Model 2, above, more powerful. Is oz. about 27,000 r. p. m. \$16.50 postpaid. At leading dealers—or order by mail on money-back trial. Write for free illustrated booklet.

DREMEL MFG. COMPANY
2136 CT. Racine, Wisconsin

America's Exclusive Maker of Motor-in-Hand Tools

SCORE A POSSIBLE

With these inexpensive, yet appreciated gifts. Speedups for preserving rifle accuracy 50¢. 2 sticks Colloid Graphite bullet lubricant 70¢. Postpaid, with Christmas wrapping and gift card. Write for attractive prices on Pacific and Belding & Mail tools—sights — Stamps for circulars

RIFLEMAN'S SERVICE COMPANY
878 East 176 St. New York City

Shown here converted M70
with Lyman Alaskan 'scope



Get a G. & H. improved Safety for your M70 Winchester. Permits low mounting of any telescope sight. Send us the bolt assembly from your rifle. Consult us for best telescope mounts, expertly fitted, and high-grade telescope sights.

GUNS

STOGER GUN CATALOG No. 31
N. Y. 1930 WORLD'S FAIR JUBILEE ISSUE
GREATEST EVER! 15,000 ITEMS, 6,000
PICTURES, 70 PAGES GUNSMITH TOOLS.
All American Guns, Best Imported LATEST
PRICES. Ammunition, GUN PARTS, Scopes,
Sights, Mounts, Ballistics, Restocking,
Reloading Tools, Barrels & Barrel Blanks, Tar-
gets, Accessories, etc. ★ Send a DOLLAR BILL,
check, coin, M. O. or stamps for this 512 PAGE
volume to America's Great Gun House—
STOGER ARMS CORP.
507 Fifth Ave. (at 42nd St.) New York, N. Y.

Expert Offhand Shots everywhere
are using the new revolving end
.22 caliber loading block. Designed
for indoor target shooting, espe-
cially the standing position. It
has proven to be the most practical
and convenient loading block made.
Write for circular. Order from
dealer or direct. Postpaid in U. S.,
Maple box \$1.00; Walnut box \$1.25.

M. WOLF

804 Knapp St., Oshkosh, Wis.



New Weaver Type B Mount is a bridge mount, of a design radically different from his previous mounts. On the gun it resembles the Redfield, Jr., and the (twin) Albee Monomount. In fact, Albee discarded a design of this nature while he was developing his present finished product. The new Weaver mount uses two separate bases, small and neat and at some distance apart, for a longer base. The other difference is that Weaver clamps are more readily detachable.

On the M-99 Savage the front block is on the receiver hood and the rear base is on the receiver just back of the ejection port. On the M-70 Winchester the rear base is on the bridge and the front base is on the barrel just forward of the receiver. This brings the Weaver 330 scope back to the top tang or behind it. To clear the safety completely, if it is desired to have the eye-end forward of the lever, the cheaper 333 scope must be used, or the Albee mount must be used with this better Weaver 330 scope. Another advantage of the Albee mount is that it utilizes the factory screw holes, whereas the Weaver mount requires drilling and tapping of the rifle receiver, or both barrel and receiver.

This new Weaver Bridge Mount is the neatest and most attractive of all his creations, and it looks very good to me. After trial I hope to be as willing to praise it, because this Type B mount in connection with the internally-adjustable 330-S Weaver hunting scope will make a very neat, very practical and very economical outfit. No adjustments in any of these mounts mentioned above, except the Redfield, which is adjustable laterally, for azimuth. Write makers for particulars.

M-70 Bull Gun of Winchester make comes through remarkably at 1000 yards in .300 Magnum caliber. Two were used in the 1000-yard Metropolitan with W. R. A. loads and gave long runs in strange hands. Walter Shanessy of the Roslyn Club borrowed his friend's outfit, never previously fired at any range, and he ran 90 consecutive bull's eyes in this 20-shot match. Then Sam Tekulsky borrowed Major Hession's rifle and dropped out his 100th shot. With his sighters that gave him 106 consecutive bull's eyes at 1000 yards, using borrowed equipment! Sam had 100 plus 79 bulls in the official match score. Shanessy had 100 plus 70 bulls. Other perfect scores were made by: Gus Schweizer, 100 plus 37 bulls; Paul Landrock, 100 plus 28 bulls and by J. L. Orr who had 100 with one extra bull's eye.

Metal Shooting Case. Designed by John C. Moore and co-developed by Allen Sayrs and purchasable from either, at The Superior Chevrolet Sales Company, No. 4124 Spring Grove Avenue, Cincinnati, Ohio, a full-size, sheet-steel shooting-

TOOLS & for Riflemen GAGES

The WILSON Case Trimmer, complete for any one of twenty popular calibers, \$7.50. Postage, 26¢. For each additional caliber add \$1.06. HEADSPACE GAGES, 30-06 ONLY, 1.940, 1.946 and 1.950" lengths, \$4.50 each, postpaid. The WILSON Primer Pocket Reamer for removing crimp from F.A. pockets, \$3.25, postpaid. Punch and base set for removing crimped primers, \$1.25, postpaid. Cartridge Case Gage, 30-06 ONLY, checks cone-to-head and over all length, \$3.50, postpaid. These tools are in stock for immediate shipment and carry our usual guarantee of satisfaction or money back.

L. E. WILSON, Wilson Bros., Cashmere, Wash.

TWO NEW ROPER STOCKS

First a beautifully made stock that is correct in design for the new Target Woodsman. Second a new stock for the .45 Auto. that improves scores and makes shooting easier. Both of these stocks have been tested and proven superior by many shooters. Like all ROPER STOCKS they are sold on a satisfaction or money back guarantee.

WALTER F. ROPER
458 Bridge St. Springfield, Mass.

STOCKS STRAIGHTENED

Drop at heel reduced or increased as much as 1 1/4 inches.

We guarantee not to mar or crack stock. Cost \$7.50.

PACHMAYR CUSTOM GUN WORKS
1220 So. Grand Ave.
Los Angeles, California

Binding Service for your old magazines may be had from Book Repair Service, Box 61, East Taunton, Mass. H. Guy Loverin, the demon bullet-molder, sent us a bound copy of the American Rifleman as a sample of this Mr. Brewer's workmanship. His price is \$1.25 per volume in this size with discounts on certain quantities. Barr and yours truly sent 8 volumes of our old copies of Arms And The Man and the American Rifleman to Brewer for binding. Write to the above address for quotations.

kit, leaves little to be desired on the part of any small-bore rifleman. In fact, we were loathe to send this one back after using it at two small-bore shoots. When we did, we had to distribute its contents between two other kits to obtain equal space or accommodation.

It is 26 inches long, $7\frac{1}{4}$ inches wide and $7\frac{1}{4}$ inches deep. Bisected lengthwise and hinged in the middle, it opens flat, the base and top thus forming equal sections and both resting on the ground to take any strain off the three hinges. The base part has 3 thin steel partitions which form one big compartment, $26 \times 4\frac{1}{2} \times 3\frac{1}{2}$ inches, and three compartments $3\frac{1}{4}$ inches wide. The top-half, opened, has a hinged metal cover secured by a latch. When opened, this cover exposes two rubber-covered holders for the target scope, which folds into a long compartment, $26 \times 4 \times 3\frac{1}{2}$ inches. I found this same compartment would also take my tube sight. The two partitions also form two shorter compartments over a foot long and $3\frac{1}{4}$ inches wide. These compartments will take about everything a shooter needs and very conveniently so. Even the bulkier spotting scopes, stand slings, arm bands and loading blocks are easily accommodated.

The steel partitions serve as reinforcements of this strong steel case. A folded construction is used, the flat bends or folds adding strength. This is one of the best cases we have seen from the standpoint of convenience and availability of contents, and it is probably the strongest as well. A good selection for protecting valuable equipment. It is also neatly finished (in crinkle black) and trim. The detachable leather handle is securely fastened. This one will not come off inadvertently from the strain of a heavy load.

The disadvantages are heavier weight and greater noise for this strong metal construction. The price is also slightly higher than that of the lighter and weaker fiber case, or about \$8.00 for this one. It does not have a key lock, but only two snap locks. These should be amplified.

LETTERS

Game-Caliber Choice—I am contemplating a trip to Canada after moose, and maybe black bear, this fall, and wish some information.

I have a Russian 7.62-mm. and a .30/40 Krag rifle, and want to know if either of these guns is O.K.

What ammunition to use and drop of bullet at different distances, when sights are set at maybe 50 yards, to 300 yards and 400 yards.

How about the Peters banded bullet? I am afraid it will not expand enough to really stop a bear or moose. It has been suggested to me by a gun man.

What kind of sights are best suited? How about a hunting scope? Especially in dark background or at twilight?—C. M. S.

Answer: Of your two rifles, the .30-40 Krag is the better. Since you might get some long-range shots in Canada I would suggest an aperture or peep rear sight, without eye cup but with the large stem-aperture only, and a silver or gold bead with a flat face or a square, flat-face, gold-tip front sight. A low-power, wide-field hunting scope, in hunting mounts, with a flat-top aiming post would also be excellent.

Use the 220-grain Soft Point or 225-grain Belted bullets. Adjust your sights at 200 yards so that from hunting positions (sitting) the center of your group is where you hold the top of your head or the top of your aiming post. Your group will then center about $4\frac{1}{2}$ inches above the point of aim at 100 yards. However, you should shoot from standing at 100 yards, and then you may find you shoot lower and can use the 200-yard sitting adjustment effectively. Your group should fall about 16 inches below aim at 300 yards and about 52 inches below aim at 400 yards. However, you should shoot from prone with a forestock or left hand rest at these long ranges and then you may find that your impacts will be slightly higher and that you will then not have to hold fully 16 inches or 52 inches high at the two longer ranges, respectively. Also see the bulletins on big-game loads.

STOEGER'S

XMAS BONUS

STOEGER'S

PEERLESS INLETTED GUN STOCKS

**ALL THIS . . .
ABSOLUTELY FREE**

GENUINE EBONY FOREND CAP
(attached)
Not composition but genuine ebony

STEEL PISTOL GRIP CAP
(with screw)

STEEL BUTT PLATE
(with 2 screws)

For ENFIELD, SPRINGFIELD, Krag, MAUSER Model 98.

For Limited Time!

Greatest offer ever made to the American Rifleman. Only because of increased demand for Stoeger's \$5.00 Peerless Inletted Stocks with resultant economies are we able to make this extraordinary offer. For the same \$5, you now get a Peerless Inletted American Walnut cheek piece and all necessary accessories FREE! So simple to assemble that you can complete the work in a half day.

\$5

SAME LOW PRICE PLUS EXTRAS SHOWN FREE

New Catalog No. 31

512 PAGES, 15,000 items, 6,000 illus.
World Standard Reference Book of Arms, Ammunition, Accessories, Gunsmith Tools.
SEND A DOLLAR BILL for this book today.

STOEGER ARMS CORP.

507 FIFTH AVE. NEW YORK, N.Y.

ADJUSTABLE TIP-UP APERTURES



Sharp Sights Mean Better Scores. Clip-on aperture \$1.75. State shooting eye and arm when ordering. Prices on shooting goggles quoted upon request.

HAROLD P. WASSON
282 William St. East Orange, N. J.

MERRY CHRISTMAS TO ALL

If His hobby is gunsmithing then give him a useful gift

Files, Rasps, Gravers, Etchingneedles, Checkering tools, Gouges, Carving tools, Inletting-Bottoming chisels, Burrs, Grinding wheels, Oil stones, Abrasives, Spring Toolsteels, and many more.

Free Pamphlets, 24 pages, 200 illustrations of 1500 items, of practical, inexpensive tools for the amateur and professional gunsmith.

FRANK MITTERMEIER
Gunsmith Supplies
3577 E. Tremont Ave. New York, N. Y.

Regarding Metal Fouling—I have a case of wartime .30-'06's marked Frankfort, and Rock Island, also U. S. '17 & '18. I have shot some of these cartridges in an Enfield M-17 and they seem to fire all right. Will they harm the barrel of my N. M. Springfield? That is, as to metal fouling and corrosion?

How shall I clean the barrel after using them, if they are fit to use in this gun?

I am now using F. A. '35 cartridges. Can you give me the M. V. developed by this load, or if it isn't too much trouble, the elevations to be used when firing up to a thousand yards? This is the regular M1, 172 grain, 9° BT bullet.



Bean's "Business Man" Shirt

No factory shirt in the country is better made regardless of price. Collar has "custom stay" which positively prevents corners turning up, a feature found only in very high priced shirts. The 3-hole pearl buttons won't pull off. It is no longer necessary for large men to have shirts made to order. Our shirts are made in "regular" and "oversize" body. Just send us weight, height, collar size, and sleeve length and we will send you a shirt that fits. Three patterns. Sizes: 14½ to 19, sleeves 32" to 35". Price \$1.95, 2 for \$3.75, postpaid. Send for large free samples and new Catalog.

L. L. Bean, Inc., 281 Main St., Freeport, Maine

How should the barrel be cleaned after using this cartridge? What is the best method of cleaning metal fouling from a barrel?—R. W. S.

Answer: For 100, 200, 300, 500, 600, 800, 900 and 1,000 yards, respectively, the minute of angle elevations for your ammunition are: 2, 5, 8, 14, 18, 26, 32 and 38.

After firing this ammunition or the old Service ammunition you should use plain water

Give Him **SAFE SHOOTING** for XMAS!

A permanent gift he is sure to enjoy

Here's a year 'round useful gift any shooter thrills to own—the modern, scientific back-stop for heavy or light caliber shooting, indoors or out.

X-RING Centrifugal Bullet Trap ends accidents

The old, antiquated type of backstop stops bullets by impact—lead spatters all over. X-Ring places a wall of metal between shooter and point of bullet disintegration. No wonder schools, colleges, the military, rifle and pistol clubs, and thousands of home range enthusiasts choose X-Ring! It's **SAFE**.

X-Ring is portable—easy to set up or take down. Any large room makes a suitable range. No permanent installation. Self-contained lighting system—glare-proof.

LOW IN COST

12" Table Model \$14.30* 12" Pedestal Model \$16.50*
18" Pedestal Model \$30.80*

*F.O.B. Peoria, Ill., without lighting system
Lighting system for any model only \$6.00

Liberal discount on gifts to NRA members. ORDER NOW to insure prompt delivery

X-RING PRODUCTS CO. 503 NORTH ST. PEORIA, ILLINOIS

The famous centrifugal trap stops bullets by friction—not impact. World's safest backstop.



MODERNIZE YOUR SCOPE

FOR TARGET SHOOTING, MORE LIGHT AND MORE POWER. 8X and 10X scope attachments, 1 1/4" and 1 3/4" objectives. Fine corrected ACHROMATIC LENS, giving flat field free of color. Many shooters have actually improved their score 3 to 8 points in using these attachments. The attachments will improve the low priced scopes as well as the better grade of scopes. They are approved by the best scope authorities. **GIVE MAKE OF SCOPE WHEN WRITING FOR FREE LITERATURE.** You can't shoot if you can't see. Cross hairs installed \$1.00—Cross hair material 50¢.

R. A. LITSCHERT CO.
520 Richmond St. Winchester, Indiana



XMAS present sure to be appreciated
R-200

Shooting Jacket \$1.45
Postpaid

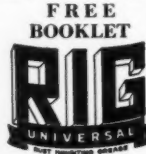
SUVAL PRODUCTS CO.
Box 844, Binghamton, N. Y.



FREE CHRISTMAS MAILING SERVICE

We will pack and ship tubes or cans direct from the factory. Special Christmas wrapping with your name and greeting. Give your friends this modern gun protection. Send us your list with cash or stamps and we will do the rest. Tube 25¢, 1/4 lb. can 50¢, pound can, \$1.50.

Use RIG Universal inside and out after every day's shooting. Stop using light oils. This special compound absolutely prevents rust regardless of climatic conditions. Tested and used by Fred Ness, Phil Sharpe, Capt. Crossman, Capt. Curtis and others. Sold by leading dealers everywhere.



RUST INHIBITING PRODUCTS
5830-R Stoney Island Ave.

Chicago, Illinois

SEASON'S GREETINGS

The perfect solution for a Gift to the shooter is a precision built
UNERTL RIFLE TELESCOPE

Free folder or advice gladly given.

JOHN UNERTL

75-B Cemetery Lane, R.D. 4, Millvale Branch

Pittsburgh, Pa.

SALESMEN WANTED For Part Time Work

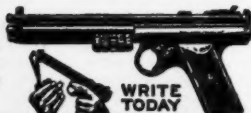
To sell complete lines of guns and shooting equipment in their communities. Attractive selling plan. No investment necessary. Commission only. Company is nationally known and all lines represented are nationally advertised. Applicants must have thorough knowledge of guns. Good character essential. Answer fully. Box 90, American Rifleman.

STEDIMOR

Portable Target Holders. Portable Shooters Stands. Flexible Cowhide Clip Cases for Woodsman and Hi-Standard Magazines. Balancers to fit Colt Woodsman with 6 1/4" Barrel.

Write for Folders.
STEDIMOR—Box 605—Rockford, Ill.

BENJAMIN AIR PISTOL WITH LEVER HAND PUMP



For Target—Small Game—Camping—Use. Convenient—Accurate—Practical—Economical—Safe—Clean—Quiet. Adjustable Force—Amazing Maximum Velocity. No Smoke or Fumes. Bolt Action—Hammer Fire—Half Trigger—Safety Lock—Hand Pump. Single Shot BB \$4.50; Single Shot cal. 177 or 22 with rifled barrel \$9.50; BB 1-shot \$10.00; Holster \$2.00. Also a complete line of Benjamin Genuine Compressed Air Rifles for BB and cal. 177 or 22. No license required from dealer or factory. Ask for complete specifications and free targets. BENJAMIN AIR RIFLE CO., 804 Marion St., St. Louis, Mo., U.S.A.

WRITE TODAY

BLUEING REVOLUTIONIZED

STOEGER'S BLACK DIAMOND

Lightning BLUER

A Faster, Better Bluer, amazingly inexpensive

Write for complete Details and prices

STOEGER ARMS CORP.

507 Fifth Ave., at 42nd St., New York, N. Y.

or some solution containing water to dissolve the salty residue deposited in the bore. Hot water may be poured through the barrel and the heat will help it to evaporate more quickly, but cold water is a better solvent and will do a more thorough job or a quicker one. Water or water-and-oil emulsions or other aqueous solution may be used directly on the cleaning patch or in connection with the bristle brush. If you have any metal fouling I would suggest that you use an ammonia swabbing solution or the commercial form, which is Winchester Crystal Cleaner, on your cleaning patch. This contains water and will also dissolve the salty deposit.

When firing the old Service ammunition with cupro-nickel bullets, and especially in rapid fire, should the metallic fouling develop in the form of lumps, you will probably have to soak the barrel with stronger ammonia, which is 28% in strength. This is done by solidly plugging the breech of the bore and using a rubber cap at the muzzle to keep the elevation of the ammonia above the muzzle. In case you have very little of the solution the space in the bore may

be taken up with an iron or steel cleaning rod. The ammonia is left in the barrel 15 or 20 minutes and then poured out and immediately wiped to avoid rusting. The metallic fouling should be dissolved and poured out, with the ammonia now stained a deep green or blue color. See the memo. on cleaning.

The use of the old Service ammunition is not injurious to the bore of your rifle. Metal fouling can sometimes be reduced by shooting a half-dozen or more of reduced lead-alloy loads using gas-check bullets at velocities between 1500 and 2000 f.-s.

On Substituting Lighter Bullets—In the October 1936 RIFLEMAN you answered a letter to H. F. W. regarding the pulling of Service bullets in .30-'06 ammunition and then reloading with a lighter .32-20 or .30-30 bullet.

Of the .32-20 bullets which should be safer from ricochets, the jacketed O. P. bullet or the S. P. bullet? By leaving the powder charge as is, which bullet will give the highest velocity, the .32-20 O. P. 80-grain bullet, the .30-30 O. P. 110-grain bullet, or the .32-20 S. P. 100-grain pistol bullet?

In remodeling an Enfield into a sporter, which should give the best accuracy, bedding the barrel down solid in the forearm of the stock, or leaving it practically full-floating as in the original stock?

Is it necessary to resize .32-20 bullets for the .30-'06?—K. K. C.

Answer: Any of the .32-20 caliber, or .30-caliber pistol bullets, can be used for this purpose as well as the 110-grain .30-30 caliber bullets, of which the W. R. A. make has the best diameter, it being a full .308 inches. I have reduced the diameter of .32-20 bullets in a .308-inch die made by Belding & Mull and which left them .309-inch diameter. However, results were not a bit better and it is my opinion that this is not necessary except where a target chamber of very close dimension is used and a .310-inch pistol bullet, or .32-20 caliber bullets, cannot be seated in the rifle. Then, of course, you must reduce the bullet for purely mechanical reasons. Also I have found it does not matter whether you use the open-point, soft-point or F. M. J. bullets in this caliber as they are all lightly constructed and will "blow up" at .30-'06 rifle-velocities. The main thing is to select one which is the most accurate and I would suggest that the one most likely to give you top-notch accuracy is the 93-grain soft-point Luger pistol bullet which costs 90¢ per hundred. This bullet in some lots, happens to be no good in the hollow-point style; you must use the soft-point style or it will not hold together. It is the most accurate bullet we have found for the .30-'06 and especially for the M-1917 bore. The velocity with the Service charge will be practically the same with any of these light bullets.



The Arms Chest is an open market trading post where manufacturers, distributors, purveyors of professional services, and our own readers may try their wares to fellow sportsmen at a modest cost. Returns are uniformly excellent—scores of advertisers have reported truly phenomenal results. Advertisements are accepted from members of the National Rifle Association, for their individual and personal transactions exclusively, at 8¢ per word INCLUDING NAME AND ADDRESS, minimum charge \$1.20. For all dealers' advertisements the rate is 10¢ per word INCLUDING NAME AND ADDRESS, minimum charge \$1.50.

In describing the condition of guns advertised the following standard phrases must be used: **Perfect** means factory condition. **Excellent** means new condition, implying negligible amount of use. **Very good** means practically new condition, implying very little use, resulting in no appreciable bore wear and very few and only minor surface scratches or wear. **Good** means moderate use with some finish worn off, and only moderate bore wear with no pits and nothing worse than a little roughness in the bore. **Fair** means reasonably hard service, reasonable wear inside, and nothing worse than a few very minor pits in the bore, implying the gun is practical and sufficiently accurate for hunting purposes. **Poor** means marred appearance and pitted or badly worn bore.

THE MEMBERS EXCHANGE

This section provides a quick, inexpensive means for disposing of guns and accessories no longer needed, or for the purchase of more suitable similar items. We urgently request that a full description be given of every article offered, and its condition (see complete instructions above), for transactions of this sort must be based entirely on good faith and mutual satisfaction. Deliberate misrepresentation will of course result in immediate expulsion from N. R. A. membership.

FOR SALE

THE TWENTIETH CENTURY GUN. A fine 12 gauge English 5/4 lb. ejector with a new system of taper boring and using a 2" shell now made by Remington. It develops more velocity than the regular 2 3/4 with a fine pattern and light recoil. The most important shotgun development in recent times. Liberal discount to regular dealers. New catalog ready. Stamp please. Kimball Arms Company, 220 Cambridge Road, Woburn, Mass. 12-38

EXCELLENT 30-06 Mauser, listed 610 Stoeger's, with perfect Noske type B, 4X Scope, Pachmayer symmetrically mounted, \$135.00. Rudy Hehr, 260 Orange Grove, Burbank, Calif. 12-38

WINCHESTER 54, custom, .220 Swift, fine condition, target weight, 48, 17, sling, etc. Karl M. Foster, Great Barrington, Mass. 12-38

ONE MODEL 70 Winchester Hornet, late model, standard grade, perfect, been shot 150 times, reason for selling failing health. Geo. L. Woodford, Philippi, W. Va. 12-38

D. C. M. SPRINGFIELD Sporter, deluxe "Alpine" French Walnut Stock, Weaver 330C, no iron sights, \$75.00. N. M. Springfield, perfect, stock good, \$40.00. Capt. A. Libasci, Ft. Warren, Wyoming. 12-38

REMINGTON 11A 12-28 full, \$30.00. Zeiss 8x24, individual focus, needs cleaning, \$30.00. Winchester-Sedgley S.S. Hornet, perfect, extremely accurate, Lyman tang, sell or trade. M. D. Winchester, New Gulf, Texas. 12-38

Groups of figures are computed as one word. Spell out all descriptive words; abbreviations may lead to serious misunderstandings and thus impair the effectiveness of your ad. Box number or blind ads not accepted. Please give complete name, so as to facilitate the proper issuance of money-orders. All advertisements must be accompanied by cash or they will be disregarded. Final closing date is the 5th of the preceding month. Please print all advertisements plainly—we cannot be responsible for errors due to illegible writing.

FRANCOTTE 12, 30, ejectors, modified. Excellent. \$85.00. Cost \$275.00. Ballard, .22 target. \$30.00. A. T. Mickle, 9 Powers, Madison, Wisconsin. 12-38

COLT ACE No. 1111, factory box, excellent. King sights, red bead reflector front, trigger by Berdon, spring shoulder holder, \$40.00. R. Slagle, Cleveland Ave., Marion, Ohio. 12-38

TARGETSPOT 10X, mounts, excellent. \$40.00. Savage 1933, perfect, \$25.00. Krag, 24", Springfield front, good, \$10.00. Clarence Carter, 115 N. Frink, Peoria, Ill. 12-38

G. & H. CUSTOM Springfield, \$125.00. Remington Automatic 12, two ribbed barrels, \$50.00. Browning Automatic 12-30, \$25.00. Parker 12-30 double, \$30.00. Ithaca 12-30 double, \$18.00. Smith 12-28 double, \$10.00. WANTED—Browning Over-Under; Magnum 10; Zeiss Lyman 2 1/2 X scope; engineers compass; microscope. W. West, Playland, Rye, N. Y. 12-38

52 WINCHESTER, Heavy Barrel, Olympic stock, 48J, 17A, sling, case, sight extension, very good, \$50.00. Jim Park, 30 Eastover, Louisville, Ky. 12-38

54 HORNET, very good, extremely accurate, scope blocks, \$45.00, about 400 empty cases, two Lyman Targets, 10X, very good with mounts, each \$40.00. Sear-Ranger, .22, stock, fore-end, and action remodeled, heavy barrel, very good, most accurate with Western Match, scope blocks, \$20.00. Lefevre 20 gauge, double, single trigger, excellent, \$35.00. Mossberg 20X Spotscope with sole-leather case, excellent, \$18.00. C. A. Reneger, Babson Park, Florida. 12-38

LEVER ACTION! Two fine modern examples: 92 Winchester, 25-20, special job, 24" medium heavy round barrel, T.D. half magazine, checked curly stock, PG, cheekpiece, rifle butt, Lyman 103 and 5B, tapped for scope; cost \$72.00, sell \$36.00; 39 Martin, Lyman 56 and 17A, oiled Gov't. sling (detachable—Stud Eyes and Hooks); worth \$40.00 new, sell \$20.00; both V.G. out, excellent in. Together, nice "Pair", low and medium power. J. I. McReynolds, 1608 32nd St., N. W., Washington, D. C. 12-38

SPEEDLOCK 52, new Buhmiller heavy barrel, hard alloy steel, guaranteed accurate, \$60.00. Krag 22 Lovell without stock, new barrel, \$20.00. Barrel Blanks, all 22 and 30 calibers. Some slightly imperfect at half price. J. R. Buhmiller, Rifle Barrel Maker, Eureka, Mont. 12-38

COLLECTORS! S&W Model 1902 hand ejector 6" target barrel, fine condition, \$75.00; Leitz Monocular 12x60 with case, new condition, cost \$82.00, sell for \$55.00. WANTED—Winchester 52 Sporter in factory condition. Will pay difference if rifle has scope. Robert W. Knight, Seneca Falls, N. Y. 12-38

STANDARD, Winchester 52, Speedlock, Beaver-tail, 48J, 17A, service sling. Above very good \$30.00. Dr. R. G. Carl, 218 Bass Bldg., Enid, Okla. 12-38

K-22, perfect inside, excellent outside in Tru-Fit holster, \$25.00. Vion Telescope 2 1/2" objective 40X lenses perfect, mechanically good, \$17.00. Francis Troiani, 111-12 175th St., Jamaica, N. Y. 12-38

SAVAGE 1933 Target, .22 L.R., excellent, \$21.50. L. B. Coe, 213 N. E. St., Crown Point, Indiana. 12-38

FECKER 1 1/2 Scope, 8 power, 1/4 click mounts. Fecker bases, two reticules fine and medium, extra 12.5 eyepiece, excellent, \$56.00 M. O. Win. 52 Standard, Speedlock, #34437, 48J, 17A, 13 inserts, accurate, excellent, including sling, pad, equalizer, keeper, Berlin case, \$35.00 M. O. Richard Collins, Bridgewater, Conn. 12-38

.25, .270, .30 CALIBER Gas Checks. \$1.10 per 1,000, postpaid. R. Kampen, 557 Pearl Ave., Rockford, Illinois. 12-38

REMINGTON Rangemaster Model 37, chambered 22 Long Rifle, in factory box, perfect, \$55.00. John Ystrom, 472 Wheeler Street, Seattle, Wash. 12-38

SUPER GRADE Winchester 54, 250-3000, excellent, \$60.00. 438 Lyman Scope, 1/4 minute mounts, bases for 54, excellent, \$15.00. O'Hare Micrometer, new, \$3.50 postpaid. William Tabor, 518 East Speedway, Tucson, Arizona. 12-38

WINCHESTER 70, 30-06, near perfect, Lyman 48-WJS, 77 Front, \$52.00 first money order. A. B. Reed, 38 Fairview Ave., Arlington, Mass. 12-38

O. M. 22, Pachmayr, Heiser: Ace, maple grips, Lawrence: Hartmann case, Tri-Pak rod, 500 Super X, Hoppe's grease, oil, patches, oilcan, brushes, bore reflector. Perfect to excellent. \$78.00. Ernest Dawe, Hunnewell Street, Wellesley, Mass. 12-38

ENGLISH Double Rifle, 303 British calibre, hammers, perfect condition, circassian walnut stock, \$65.00. George Pace, 3134 Elliott Ave., Dayton, Ohio. 12-38

REMINGTON 29, 12x28, modified, case, perfect, \$25.00. Keuffel and Esser ten-inch slide rule, Poly-phase Duplex \$4.00; Log. Log. Duplex \$4.50, with instructions, both very good. W. F. Preston, 206 Hilton Ave., Catonsville, Maryland. 12-38

PARKER V. H. 12 Double Barrel. 2 sets Damascus barrels, 26 cylinder, 28 full. Outside blue worn, inside excellent, leather case. \$75.00. Ray Novak, Box 230, Ponca City, Oklahoma. 12-38

4X OIGEE Luxor-Hell scope, never mounted. Cost \$50.00. Best offer. G. Hofer, 12427 Strasburg, Detroit, Michigan. 12-38

COLTS Officers Model 22 and holster. Perfect. \$30.00. Colts 45 Auto, late Commercial Model. Very good. \$20.00. W. T. Spelts, Clarks, Nebraska. 12-38

CENTRIFUGAL Trap, \$5.00. Potter Furnace, \$7.50. B&M Tool 38 Special, 45, 30-06, 30-40, \$25.00. Powder Measure, \$5.00. Custom Built Woodsman, perfect condition, \$35.00. 61 Winchester, perfect, \$15.00. Albert D. Cobick, 429 N. Ash Street, Nevada, Missouri. 12-38

EXCELLENT M12 Standard Trap 12 gauge receiver and stock. \$20.00. Charles Darwin, Cookeville, Tennessee. 12-38

WINCHESTER 57, sling, canvas case, \$15.00; National Match Springfield, \$30.00; Stevens 416, Globe front sight, barrel rebedded, \$18.00. All accurate and in good condition. Satisfaction guaranteed. L. Q. Bradley, c/o National Rifle Association, Washington, D. C. 12-38

BAUSCH & LOMB Binoculars Central Focusing 7x35 in perfect condition, \$65.00. Chas. S. Johnston, Chula Vista, California. 12-38

SATISFIED SELLER—

"Received over 35 replies to my ad. If I ever need to get rid of—or want to buy—any other equipment, you'll certainly hear from me."—Pa.

PLEASED PURCHASER—

"I bought a pair of Zeiss binoculars, advertised as in new condition. I found them to be a wonderful 'buy', even better than represented."—Utah.

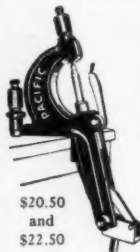
Just further proof that "The Arms Chest" is the fastest, surest, safest way to dispose of excess equipment, or to purchase whatever new items you need.

Send us your ad immediately for the January issue. Final closing date is December 5th. See full instructions above.

Perfect Christmas Gifts "PACIFIC" EQUIPMENT

**PACIFIC
GUN SIGHT
CO.**

Any shooter would like to have "Pacific" equipment—this kind of gift will please him—it is probably just what he wants—and you will have the satisfaction of having given him THE BEST!



\$20.50
and
\$22.50

Complete Stock
of
RELOADING
SUPPLIES

"PACIFIC" RELOADING TOOL

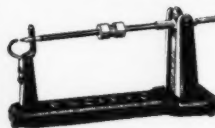
The only custom built tool on the market. Ask about our new dies hardened by the liquid carburizing system. All calibers.

"PACIFIC" POWDER MEASURE

For pistol and hornet reloading. Extremely accurate—fixed charge—fast. Send for Special Circular. Price \$4.50.



"PACIFIC" SCALE

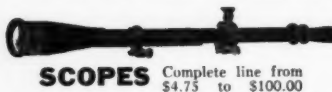


Sensitive to less than one-tenth of a grain.

Complete with weights \$7

ORDER DIRECT
OR THROUGH
YOUR DEALER

For All Rifles—"PACIFIC" SIGHTS—Front and Rear



Complete line from \$4.75 to \$100.00

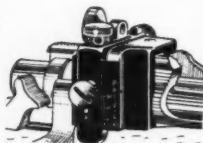


RAMP SIGHT

Made for barrels .395 to .650 in diameter, \$4.75 (without hood, \$3.25).

Full Micrometer Sight Model EN-2

Specially built for the Enfield. Can be attached without drilling or tapping any holes. Price, \$7.00.



CATALOG Send 20¢ for new CATALOG—HANDBOOK No. 17. The 20¢ partially covers the cost of publishing and mailing. The 20¢ will be refunded on your first order. Requests from Canada: send 25¢.

Circulars (state which you desire) on "Pacific" Reloading Tools and on "Pacific" Sights will be sent on request FREE.

PACIFIC GUN SIGHT CO.

353 Hayes St., San Francisco, California

When Your Dog Begins to Scratch YOU OWE HIM Relief



Don't blame the weather or animal nature when your dog scratches and sheds his coat continuously. It isn't nature's way at all.

A dog's blood may be continually affected by impurities, produced by the restraint of domestic life, improper food, lack of natural exercise and impaired elimination. These conditions act to set up an intense irritation in the nerve endings of his skin. No wonder he is fretful, nervous. He is in torment.

He looks to you for help and you can give it—quickly. Rex Hunters Tasterless Dog Powders in sanitary capsules provide blood tonic elements and a reconstructive for dogs of all breeds, any age. Given regularly on Saturday each week they act to quickly relieve disorders due to lack of proper conditioning that cause scratching, loose coat, listlessness, poor appetite, bad breath, skin irritations, and a host of other ills. They work to make your pet happier, healthier, and more contented.

Inexpensive and easy to administer. Rex Hunters Dog Powders—the prescription of a prominent English Veterinary Surgeon, are for sale at leading Drug Stores, Pet and Sport Shops. Their well-directed action should show a quick effect. You may never know how fine your dog can be until you have tried them. Ask for Rex Hunters Dog Powders—Keep Dogs Fit.

If unable to obtain locally send 25¢ or \$1.00 to J. Hilgers & Co., Dept. 610, Binghamton, N. Y.

EXCLUSIVE with STOEGER

A Jack

Available for the first time since 1914. The world renowned German-made Jack Hunting and Target Scope give you, by far, the largest field of view. Brilliant images assured. No color distortion. Very rugged. Modestly priced. Send for Free Pamphlet.

STOEGER ARMS CORP. 587 Fifth Ave., N. Y. C.

9" x 4' and 4 1/2' SOUTH BEND LATHE

New Low
Terms
ONLY \$6.00
A MONTH

WRITE for details on this new 9-inch Workshop Precision Lathe—back geared, screw-cutting. Made in 3', 3 1/2', 4' and 4 1/2' bed lengths with distance between centers of 17", 23", 29", and 35". Takes 38 attachments. Weight 320 lbs.



Write for FREE Catalog AS LOW AS \$85 LESS MOTOR DRIVE SOUTH BEND LATHE WORKS 238 E. Madison St., South Bend, Ind., U.S.A.

TRADE IN YOUR OLD GUNS

Bargain prices on new guns, revolvers, and rifles. Trade your old gun for a new one! (Time payments arranged.) Unusually liberal allowance or TOP prices for rifles, guns, binoculars, cameras, etc. Tell us what you have. What you want? All merchandise sent prepaid. Est. 1896.

FREE CATALOG ON REQUEST **SOLOMON'S SPORTING GOODS CO.** 97-A Park Row, N.Y.C.

52, HEAVY, '36, 1 1/4", \$36.50. New, 52 heavy barrel, factory perfect, never fired, \$14.00. Stamp. J. Harrison, 111 W. Vandell, El Paso, Texas. 12-38

SPECIAL Winchester 12 ga. lever repeater, \$25.00. Custom made standard size watch that strikes hours and minutes. Very rare. Hammerless combination 12 ga. x 45-70 \$35.00. Remington 7.62 mm. sporter \$15.00. Western Field pump 12 ga. \$17.50. With rib \$20.00. Same 20 ga. \$20.00. Winchester 410 \$25.00. WANT—Double rifles, combination guns and Smith & Wesson Magnum. Irving Auto Company, Biddeford, Maine. 12-38

CLOSE OUT: Automatics and Revolvers, send for list. John K. Carmichael Inc., 6 Centre Market Place, New York, N. Y. 12-38

LATEST Colt O.M. 22 (new 8/15/38), adaptor, excellent, \$32.50. S&W 44 Military Target, Magna, very good, \$27.50. Ideal 44 Special Tool No. 3, accessories (neck sizer, expander, bullet sizer), Mould 429348, kakecutter, 140 cases, \$12.00. Western Field (Mossberg 43) Rifle, 57, 17A, click scope, fired 50x, excellent, \$18.00. All F.O.B. Dr. J. E. Morgan, Duke Hospital, Durham, N. C. 12-38

WINCHESTER 52, Heavy Barrel, 48J, 17A, excellent inside, very good outside, \$40.00. Nelson Smith, Hampden-Sydney, Va. 12-38

NIEDNER Springfield 270 Heavy Barrel, Mann Nieder Chamber Die and Neck Reamer. Very accurate. Cash offer only. Winchester S.S. 32-40 No. 4 Barrel, fair. Stevens 44 1/2 Action, Winchester No. 1 Action. Stevens 438 Scope only. Baker 20 Double good. Winchester 38-40 Tool and Mould. L. B. Close, Whitewater, Calif. 12-38

SKEET Grade Model 12 Winchester, two barrels, one 28" full choke with rib, one 26" with compensator and rib, complete with English leather case which holds whole outfit. Gun case and all in excellent condition for \$99.50. Decker Bros., Mason City, Iowa. 12-38

BEAUTIFUL DeLuxe Pachmayr Sporter Mauser Action for 30 Gov't. 1906 cartridge, handmade barrel; circassian walnut stock, oil finish, forearm, pistol grip checked, special sights, Pachmayr set trigger. Noske 2 1/2 telescope and mount detachable, cost \$250.00, cash \$145.00. Hensoldt 7x56 m.m. Featherweight Binoculars, cost \$210.00, cash \$125.00. All perfect condition. Noske 2 1/2 Telescope with complete detachable mount, cash \$50.00. WANT the following new. 300 Magnum Model 70 Winchester. 220 Swift Model 70 Winchester. Hensoldt 2 3/4 Zielyt Telescope; 6x42 m.m. Featherweight Binoculars; 7x42 m.m. Featherweight Binoculars; Carl Zeiss 2 1/2 Telescope; Noske 1938 2 3/4 Telescope internal windage. Modern Gunsmith 2 vols. by Howe; Arms and Ammunition by Omundson & Robinson; rifle catalogues, Ross Rifle Co., Newton Arms Co., Modern Guns by Fred Adolph; Arms and the Man, American Rifleman Magazine from 1912 to 1936 complete years. Sidney Morris, Jackson, Wyoming. 12-38

VION Achromatic Telescope, 40X, good, with case, \$15.00. Floyd Miller, 217 N. Main, Towanda, Pa. 12-38

417 STEVENS "Walnut Hill," Goss, 17A, excellent; Remington Model 31 Shotgun, 20 gauge, 3 shot, perfect. D. Brazy, Menomonee Falls, Wis. 12-38

FACTORY SECONDS Recoil Pads, \$1.00, postpaid. Complete with screws for attaching. You save \$2.25. Send outline of gun butt. Prompt delivery and satisfaction guaranteed. Incor Mfg. Co., Terminal Bldg., Youngstown, Ohio. 12-38

SAVAGE Skeet Auto, compensator equipped, beautiful burl walnut custom stock, perfect inside, excellent out, \$70.00. Dr. F. Knaub, Chambersburg, Pa. 12-38

FRONTIER 32-20, good, \$10.00. Colt 25 Auto, excellent, \$12.50. Davis 12 Double Hammerless, very good, \$12.50. Ralph Drake, Osborne, Kans. 12-38

AMERICAN RIFLEMAN, 1928 to 1938, complete \$2.00 per year. Some broken files of same 1923 to 1934, best offer. Lot of National Geographic and Mechanical magazines. Also collection of Guns, Molds, Tools, Cameras, Shells, etc. Freeman F. Page, Box 788, Choteau, Mont. 12-38

DELUXE Enfield Sporter, fancy checked, pearl inlaid, new Remington barrel, scope, excellent, \$30.00. Same with deluxe remodelled stock, fancy checking, pearl inlays, \$25.00. Fancy "Natural Grip" handles for Woodsman, checked, pearl inlaid, \$3.50 to \$7.50. Smith Ideal 20, ejector, almost brand new, \$50.00 or trade for 16 or 12. Dr. John P. New, 1057 Walker Ave., Oakland, Calif. 12-38

SKIERS! Free Ski Catalog. Free! Tackle Catalog. Free! Camera List. Gun Clubs! Send 10¢ for Medal-Award Catalog. N.R.A. Prices! Colt Match Woodsman, Weaver No. 330 Scope Type "B" mount \$27.90. Free! Gun Catalog. J. Warshall & Sons, First & Madison-BB, Seattle, Wash. 12-38

WINCHESTER 54, 257 Roberts, 21 inch barrel, Zeiss Ziekler Scope, Redfield Mounts, guaranteed excellent, \$75.00. R. Harrison, 208 Union Trust Bldg., Washington, D. C. 12-38

SMALLBORE outfit complete, \$95.00, including W52, Fecker 1 1/4, spotting scope and stand, coat glove, block, etc. All very good to excellent, cost \$150.00. Two Colt Officers Models, 22, very good, \$25.00; 38, excellent, Pachmayr adaptor, extras, \$30.00. Charles Gunn, Great Bend, Kansas. 12-38

10 GAUGE, 30 inch barrel, Colt Hammerless, fine, \$25.00, 12 gauge Scott Hammer, perfect, \$16.00. Lot of Percussions also. J. G. W. Dillin, Box 87, Media, Pa. 12-38

THE AMERICAN RIFLEMAN

UNERTL 1 1/4" 8X, new, Unertl 1" 8X, excellent, Win. M70 .220 Swift barrel, never fired, M54 .270 barrel, perfect, Bisley .44-40, good. W. H. Otis, 30 West Chicago Ave., Chicago, Ill. 12-38

W92 25-20 Carbine, bore perfect, 250 B-Pdr. shells, \$16.00. Spanish 32-20 Blue, V.G., Mexican holster, \$8.00. H&R .32, 4 1/4", V.G., \$3.50. Ammunition, .30-06, '34, \$2.50; '18, \$1.25. TRADE—Remington 7 mm., S.S., 30", perfect, 100 S.P., .43 Egyptian Mauser, bore V.G., shells, for 22 rifles. F. C. Culler, Alliance, Ohio. 12-38

COLTS 380 Auto, two extra magazines, 100 cartridges, real snap, \$12.00. Colts 32 Auto, brand new barrel, 50 Kleanbore cartridges, snap, \$10.00. Ideal 5 Powder Measure, new, \$5.00. Redfield Jr. Mt. for Weaver, fit Model 70, new, \$5.00. 100, 38 Super Automatic cartridges Kleanbore, \$2.00. 400, Hornet Super X H. P., \$8.50. Model 61, like new, shot 300 cartridges, \$16.00. Weaver 30-C, brand new, choose your mt., \$22.00. Pacific Scales with weights, new, \$6.00. Money orders. Robert Cross, Milbank, So. Dak. 12-38

COLT .22 Officers Model recessed, very good, \$25.00, belt and holster, \$5.00. Stevens 417 Heavy Barrel Target Rifle, 48, 17A, excellent, \$30.00. Wm. Falk, 161 West 66th Street, New York City. 12-38

B.S.A. .22 calibre target rifle, equipped No. 30 aperture rear sight. Stoeger No. 12. Cost \$125.00. Sell \$65.00. Winchester Model 42, 410 shotgun. Modified. Sell \$25.00. Above both perfect. George Pace, 3134 Elliott Ave., Dayton, Ohio. 12-38

7.65 MAUSER Automatic Pistol, very good, \$9.00. .30-30 Marlin, excellent, \$19.50. .22 Winchester 63, Redfield Globe, Lyman peep, excellent bore, \$20.00. 4X "Oigee", scope and mounts, cost \$72.00, sell \$30. .41 Swiss Musket, very good bore, \$7.50. 16 m.m. Movie Camera, working order, \$3.50. .12 Remington M31 Skeet, ventilated rib, new condition, cost \$72.50, sell, \$47.50. .20 Ithaca Double, clean bores, \$22.50. .12 Winchester M97 Pump, newly reblued, \$18.50. .16 Davis-Crescent Double, brush gun, clean bores, \$10.50. .32 Special Winchester Carbine, Lyman 21, very good, \$18.50. Free List. No trades unless part cash. Karl Hansen, 79 Oakwood, Bogota, New Jersey. 12-38

TARGET Outfit, excellent, Ranger 22, Model 50, Lyman 17A, Redfield rear. Spotting Scope, Stand, \$35.00. Geo. Moncrief, 147 N. Broad St., Pennsylvania, N. J. 12-38

K-22, EXCELLENT, with Feldes and original grips, trigger pull readjusted at factory, \$30.00. George Werner, High Ridge, Missouri. 12-38

CUSTOMIZED 4 1/2" action in white, perfect. Curved lever and tang. Stock bolt. \$17.50. Henry A. Roberts, 2415 20th St., Lubbock, Texas. 12-38

SAW MAGNUM, as factory, \$45.00. K-22, perfect, \$25.00, with Ropers, \$30.00. Outdoorsman, perfect, \$35.00. Automatics: .38 Super, perfect inside, fine outside, \$22.50; Military .38, worn, \$9.00. Lightning Model .38, fine, \$13.00. Perfect barrels: long Woodsman, \$3.00; .38 Lightning, \$3.00. WANT—Rifleman before 1925. William Gray, 3111 W. 15th, Topeka, Kansas. 12-38

FECKER 6X, 3 1/2", good, \$30.00. Examination allowed. Click mounts. W. L. Galbraith, Route 5, Vancouver, Wash. 12-38

FOR SALE: SACRIFICE. Two beautiful Heavy Pope Jobs for 2 shorts: Ballard double set Schutzen; Winchester single set; wonderful stocking and work, please anyone, genuine Pops, impossible duplicate. Also two Schutzen jobs: double set, one Ballard, other Stevens, both originals for shorts, thirty dollars each. Clarence A. Marsh, Orlando, Florida. 12-38

NEW LEICA and accessories costing \$440.00 offered for \$310.00. Professor Frank Urban, Washington University Medical School, St. Louis, Missouri. 12-38

BROWNING Special Grade Automatic, 3-shot, 12-28 modified, ventilated rib, like new, complete with beautiful hard leather case, \$48.50. Standard Winchester, 52, 17A, sling, excellent, \$33.50. K-22, trivial holster wear at muzzle, otherwise perfect, with special carved holster and 3" belt, bargain \$29.50. Thos. J. Martin, Placerville, Calif. 12-38

LEE-WINCHESTER, good, new sporter stock, reblued, ramp ivory sight. Arnold Terhaar, 6425 Cross Street, Jacksonville, Fla. 12-38

52 HEAVY BARREL No. 39443, 48J, 17G, excellent, \$48.50. Bausch Lomb draw tube, excellent, \$21.50. James Tarlton, 20 Walnut St., Marcus Hook, Pa. 12-38

FANCY 35 Whelen Springfield 1343833, inside perfect, outside fine, Lyman 48, Goldtip front, 105 loads, \$75.00. Murry Dickie, 8 Roubie Court, Berkeley, Calif. 12-38

GUN-RACKS, suitable for camp or home. Price reasonable. Write for photographic description. Leonard R. Huffman, Smethport, Pa. 12-38

100% HIT with these GIFTS

\$6.50

THE CHOICE OF CHAMPIONS

10-X ARISTOCRAT RIFLEMAN'S COAT. Very high quality properly designed rifleman's coat at very lowest price. Half inch thick felt padding covered with chrome tanned horsehide leather. Pleated back, belted and fitted, with plenty of room where needed. Lots of pockets in right places. Light weight, durable, sanforized. O. D. Khaki. Only \$6.50. Pants to match \$3.50.

SEND CHEST MEASUREMENT WITH YOUR ORDER



SEND GLOVE SIZE

10-X RIFLEMAN'S GLOVE. The shooting glove sensation. Correctly designed and padded to give maximum comfort and wear. Will not wear out. Every rifleman wants a 10-X glove Only \$2.50.

\$2.50

10-X GUN CASE. All leather, chrome tanned No. 1 horsehide, zipper closing. The handiest case you ever saw; complete with carrying sling only \$5.25.

STATE MAKE AND MODEL OF GUN

ORDER NOW If your dealer can't supply you, order at once direct from factory. All prices postpaid. Orders shipped same day received. All 10-X products are sold on money-back guarantee.

10-X

MANUFACTURING CO.

Des Moines Iowa

8 POWER PRISM MONOCULAR

LENSES MADE FOR \$48 U. S. GOVT. BINOCULAR

ONLY \$1 DOWN

This amazing 8x32mm. prism glass on easy terms at a fraction of the original cost. Fully achromatic lenses made for binoculars costing \$46 each in 100,000 lots. BRAND NEW. Gives exactly same magnification, field and light-gathering power as \$60 binocular but in for one eye only. Extra wide field—45 ft. at 1,000 yds. Light, convenient—weight only 8 oz., 3 1/4" high. Has focusing eyepiece. Limited quantity—take advantage of this super value now. No reserves. Mail \$1 and your glass will be sent at once. Then deposit with postman \$1.96 plus few cents postage; send us \$1 each month for 7 months. Cash price \$7.96. Money-back guarantee. Cat. has over 100 illustrations: binoculars, telescopes, microscopes, etc. FREE Leather Case

BIG CATALOG 10c, refunded first order

DUMAURIER CO., Dept. 1912 ELMIRA, N.Y.

SERGEANT'S SURE SHOT CAPSULES WORM DOGS SURELY, EFFECTIVELY

FOR ROUND AND HOOK WORMS

There are 23 tested "Sergeant's" Dog Medicines. Trusted since 1879. Constantly improved. Made of finest drugs. Sold under money-back Guarantee by drug and pet shops. Ask them for a FREE copy of "Sergeant's" Dog Book, or write: POLK MILLER PRODUCTS CORP. 7312 W. Broad Street • Richmond, Va.

HI-STANDARD .22 AUTOMATIC

New models A, D & E, with longer grip, adj. rear sight & slide lock, \$28.50, \$35, \$40. Orig. models B & C, \$20. All for .22 caliber rimfire. Send for folder.

HIGH STANDARD MFG. CO., 151 Foote St., New Haven, Conn.

WINCHESTER High Side R2 Lovell, 26" John-son-lined barrel. Barrel and action perfect, \$35.00. Winchester 70 .300 Magnum, super grade, Lyman Alaskan and Redfield Junior mount, fired 4 times, perfect, \$120.00. Burrell Hawver, Palatine Bridge, New York. 12-38

LEE-METFORD, .455 Webley revolver and automatic, Martini-Henry, Snider, Enfields, Tranter, Tower Flintlock. Other English percussion guns. Free list. WANT—Short Lee-Enfield, Lee-Enfield Carbine. Frank Baldwin, 78 Forest, Bangor, Maine. 12-38

Sergeant's DOG MEDICINES

PROTECTS FIREARMS

The Only Perfect Combination Gun Oil & Solvent! Lenses, 7x moves and prevents rust. STOEGEROL protects steel and iron. Eliminates double cleaning. Never hardens or gums. An excellent lubricant. A perfect solvent. 50c at your dealer; 60c postpaid.

STOEGER ARMS CORP., 507 5th Ave., NEW YORK, N.Y.

STOEGEROL

FOR THE THE RIFLEMAN'S BEST CHRISTMAS

BAUSCH & LOMB

Spotting Scope

No rifleman who has ever seen or used a Bausch & Lomb Spotting Scope can ever be satisfied with less. And what an opportunity Christmas offers to strike joy into the heart of the target enthusiast. This Christmas give him that finest of shooting aids—a real Bausch & Lomb Spotting Scope. *Complete literature on request.* Bausch & Lomb Optical Co., 749 Lomb Park, Rochester, N. Y. At right, N. R. A. Spotting Scope, \$55.

BAUSCH & LOMB

Spotting Scopes

THE CHOICE OF CHAMPIONS

The Greatest Knife a Sportsman Ever Carried

Keen as a razor—shaped and tempered for outdoor service—modeled to fit the hand with a sure, easy grip. Just the knife you need for cutting your way through underbrush, sharpening tent stakes, dressing game, slicing bacon, etc. Marble Woodcraft No. 49 Leather Handle, 4½ in. blade, with Leather Sheath \$2.00. This knife is just one item in the famous line of—

MARBLE'S OUTING EQUIPMENT

"For Every Hour in the Open"

No. 60 Sport — A great favorite in a compact knife. Very practical shaped blade. Colorful buffed leather handle. 4" blade. Price, with sheath, \$1.50.

No. 545 Expert — For those who prefer a thin, keen edge for dressing skins and furs. Back of blade designed for scraping skins. 5" blade. Price, with sheath, \$2.50.

Waterproof Match Box — Keeps matches always dry. May save lives. Carry in pocket, on chain or belt. No. 181, 60c.

Marble's Coat Compass — Fastens to coat or sleeve. Guaranteed accurate. No. 182, stationary dial, \$1.25. No. 183, revolving dial, \$1.50.

Marble's Products are sold by most good dealers or mailed postpaid on receipt of price. Write for complete catalog.

Marble Arms & Mfg. Co. 502 Delta Ave., (A-148) Gladstone, Mich., U.S.A.

CROFT'S Shooting Coats

The Camp Ritchie . . .	Price \$4.50
The Dewar . . .	" \$5.15
The 9' Possible . . .	" \$6.00
The Camp Perry . . .	" \$7.85

Descriptive measurement folder of shooting coats, leather gun cases, shooting gloves, on request.

H. & D. FOLSOM ARMS CO.

312 Broadway New York, N. Y.

THE HAWKINS RECOIL PAD



will save your shoulder and move the gun straight back. Your dealer has them—\$1.75, \$2.75, \$3.25 postpaid.

THE CUSHION PAD CO.

Box 81 Sioux Falls, S. D.

Bargains in New and Used Glasses!



Nature, sport and hunting field glasses all makes, sizes and powers, \$3 upward. Telescopes, spotting and riflescopes. Microscopes. Magnifiers \$1 upward. Compasses. Repair work. Glasses exchanged Catalog Free. Goods on approval. Address Box D.

J. ALDEN LORING, OWEGO, N.Y.

22 COLT Camp Perry, 10 inch, Speedlock, excellent, \$25.00. 22 Colt Officers Model, 6 inch, recessed cylinder, excellent, \$30.00. H. & R. 10 inch Pistol, grooved rib, excellent, \$15.00. Binocular and case 8XL-14 Leitz Wetzlar, excellent, \$40.00. Andrew J. Kolar, 7546 Merrill Ave., Chicago, Illinois. 12-38

WILMOT GUN CO. 8 Ga. Double, 34 inch, Twist barrels, full, good shooting condition, 20 loaded shells, \$16.50. Colt and Remington Percussions 44, both good, \$7.50 each. D. B. Conley, Swampton, Ky. 12-38

SPECIAL PRICES! Hi-Standard Pistols, H. & R. Sportsman, Ultra Sportsman, Sedgley Rifles, Winchester M/70. Pachmayr Revolver Grips \$1.35. A-1 Gov't. Sings 50¢. Swivels 35¢. New Army Scabbards \$4.95. Free! Gun Catalog. J. Warshal & Sons, First & Madison-BB, Seattle, Wash. 12-38

M52 STANDARD excellent, Vaver M1R, 17A, sling with equalizer, fired 400 rounds, \$42.50. Keuffel & Esser Engineers Light Mountain Transit, bargain. Details on request. Complete outfit. Consider perfect D.C.M. Sporter or M70-06 in trade. K. F. Hellyer, 2101 Castilian, Hollywood, California. 12-38

ENFIELD SPORTER, very good. French Walnut cheekpiece stock, QD sling. Pacific rear, ramp front. 22 inch barrel. Straight guard. B&M Marksman scope, click mounts. Outfit \$50.00, sold separately \$27.50 each. Krag carbine, action very good, \$10.00. James Hinson, 450 Kingbird, Waterloo, Iowa. 12-38

38 COLT Shooting Master, new, perfect, with \$6.50 handtool Meyers holster, \$40.00. G. G. White, 1908 Carlton, Fort Worth, Texas. 12-38

REMINGTON automatic barrel only, 12 gauge, 26" improved cylinder, excellent, \$11.00. Felix 8x24 prism binoculars, lightweight, good, \$8.00. Joe Harris, 2606 Monterey, St. Joseph, Missouri. 12-38

COLT Woodsman, good, \$16.00. H. & R. 10", 2 grips, very good, \$17.00. 22 N.R.A. Sporter, good, Ranger scope, \$15.00. Bear Rugs, Game Heads. Ralph Feld, Edison, Ohio. 12-38

REMINGTON Pump Model 29, 12-26" Mod., fair, \$12.00. Winchester 94, 32 Special Carbine, 2/3 Mag., fair, \$12.00. Colt 22 Auto, 6" barrel, Target Sights, good, \$15.00. Colt 32 Auto, fair, \$8.00. Herman J. Lang, 2220 Lynnbrook Ave., Brookline, Pittsburgh, Pa. 12-38

38 LOADING OUTFIT \$7.50. No. 3 Ideal Tools, 358311 Mould, Pot, Ladle, Walter Milius, 7560 Williams, Maplewood, Missouri. 12-38

EXCELLENT 25A Remington 25-20, \$18.00. Fancy Remington 25A, 32-20, \$22.50. Excellent Remington 121, Field Master, Marble's Sheard Front, adjustable leaf and Tang rear, \$22.50. True Temper 9 ft. Bass fly rod, \$6.50. Oren-o-matic reel, line, dressing and flies, all new \$16.50. Colts Woodsman, 6½ inch, two magazines, Heiser's holster, V.G. to excellent, \$22.50. WANT—Fancy 25-20 Winchester or Remington. P. R. Lilly, Valdosta, Ga. 12-38

PERFECT, Winchester 54 Hornet with Lyman 5A Scope and Mounts, Lyman 48, front sight cover, heavy canvas case, sling, ammunition. Saddle leather case for scope. Complete, \$75.00. H. J. Franzen, 72 West Adams Street, Room 1400, Chicago, Illinois. 12-38

WINCHESTER 54, 30-06, 48 rear, excellent, \$39.50. Lyman 5A, ½" mounts, not click, good, \$19.50. Winchester S.S., 22 L.R., No. 4 barrel, palm rest, single set; A5 Scope, ¼" click mounts, blueing worn. Either or both best offer. William Anderson, 500 Broadway, Newport, R. I. 12-38

52-W SPORTER, perfect, \$65.00. N.M. Springfield Sporter, perfect, \$65.00. Each have hi-grade stocks. M. G. Pratt, 1133 E. Portland, Phoenix, Arizona. 12-38

U. S. ARMY, Peabody Breach Loading, S.S. Cavalry Carbines, Factory new condition, in and out. \$4.75. Collectors, send your name and get on my mailing list. H. G. Young, Liberty Ave., Belleville, N. J. 12-38

SPRINGFIELD Sporter 30-06 beautiful stock, high number receiver, 48W and 17A. Mounted scope blocks and 1½ Focker 12½ power, both excellent, first money order \$80.00 takes. Bargain, not sold separately. Harry Lee Koenig, 11 Logdes Lane, Bala Cynwyd, Penna. 12-38

MY PRIVATE COLLECTION of Modern Shot Guns, Trap Guns, Rifles and Revolvers, twenty in all; also four fine muzzle loading rifles. Shotgun are Ithaca, L.C. Smith, Parker, W. & C. Scott, Christo Funk, J.P. Sauer & Son. All in fine condition. T. E. Gaskill, Belpre, Ohio. 12-38

ENFIELD Bull Gun 28" Sukalle 1¼ x ¾ barrel, 48 and 17A. Poor stock, otherwise very good, ad-rance set triggers extra. \$50.00. Charles R. Adams, 27 Winchester St., Keene, N. H. 12-38

BALLARD JOHNSON thirty inch 11/16 straight. Set and single trigger with extra firing pin. Prone stock with cheek piece. Beautiful offhand stock, door-knob and all. Lyman 77 front, MG rear. Perfect condition. Will ship on approval. \$60.00. Wes Hansche, 2025 Taylor Ave., Racine, Wis. 12-38

WINCHESTER 70 Hornet, Lyman Alaskan Scope, taper post, G. & H. mount, factory mounted, sling, fired 150 shots, 4 months old, perfect, \$110.00. Cash. Leonard Travis, La Salle, Ill. 12-38

SPECIAL SALE of new and used shotguns, rifles and revolvers. Send for list. Stamp please. Kimball Arms Company, 220 Cambridge Road, Woburn, Mass. 12-38

WINCHESTER 54, 24" Niedner barrel, 35 Whelen, very good, \$40.00. Don Polderdyke, 2020 Alcott Place, Kalamazoo, Mich. 12-38

FRENCH WEAPONS, 1717-1936. Book having 175 pages of illustrations, covering by Models; Firearms; Machine Guns; Artillery; Ammunition since 1717. Price \$3.50, postage extra. Captain James E. Hicks, 428 Rich Ave., Mt. Vernon, N. Y. 12-38

HEAVY ACTION Winchester S.S. No. 3 nickel steel barrel, 25-35 caliber, scope blocks, excellent. Tools, sixty loaded, eighty empties. \$40.00. W. L. Case, Ravenna, Ohio. 12-38

8X TARGETSPOT, perfect, \$40.00. .44 S. & W. Special, excellent, \$18.00. Dave Dawson, Box 2040, Tulsa, Okla. 12-38

NEW 1 1/4" Unertl 10X 1/4 Mounts Lee Center Dot Beautiful Optics, \$50.00. Latest Winchester 52 Heavy Barrel, Marksman, \$50.00. Championship equipment. Richard Stam, Dale Road, Rochester, N. Y. 12-38

COLT O.M., excellent, sheepskin holster and cartridge belt, \$25.00. Secretary Troy Rifle Club, Troy, Kansas. 12-38

.219 ZIPPER, heavy Lovell barrel, double set triggers, engraved Mauser action, Pacific dies and shell holder, 1 1/4" sling. This is the Zipper mentioned in January 1938 Dope Bag. Sacrifice \$80.00. WANT—Target Model 70 .257, .250 Magnum, .276 Dubiel, Ted Holmes, R. R. #1, Mattoon, Illinois. 12-38

SPECIAL PRICES! Lyman, Noske, Weaver, Fecker, Unertl, Malcolm Scopes. New Redfield Mount \$8.00. Winchester B-5 Scope \$10.95, A-5 \$14.95. Complete Stock Reloading Tools, Bullets, Primers, Cases, Powder. J. Warshall & Sons, First & Madison-BB, Seattle, Wash. 12-38

WOODSMAN, 4 1/2" and 6 1/2" barrels, excellent. Roper grips, holster, \$34.75. Super Grade Model 54 Winchester Hornet, blocks, sling, bolt altered for scope use, excellent, \$65.00. Charles Riley, 231 Hosea Ave., Cincinnati, Ohio. 12-38

M52 HEAVY BARREL 1935, excellent, just returned from Winchester factory where fitted with new bolt handle firing pin and spring. Good plywood case, size 42 shooting coat, all for \$32.50. Geo. Howard, 1221 W. 6th, Coffeyville, Kansas. 12-38

MAUSER SPORTER, 30-06, Waffenfabrik 1910, very good, \$40.00. Winchester 95 .35 Win., peep, very good, \$24.00. Winchester 70, 30-06, tapped for Noske, perfect, \$40.00. Colt Frontier, 44-40, good, \$10.00. Heavy barreled N.M. Springfield, 48, fine checked stock, excellent, \$55.00. Lefever Trap, 12 ga., excellent, \$20.00. Officer's Model 38S, very good, \$22.00. Shooting Master .45, new, \$40.00. Ranger Target, 17A, 57, as new, 1/2 in. test groups, \$20.00. Remington 12 pump, pad, very good, \$22.00. Garrett F. Huizenga, Zeeland, Michigan. 12-38

PEERLESS Rifle Stocks, Seconds. These are the same as the regular Stoeger Peerless rough turned Stocks but are seconds for reasons stated. Light or irregularly colored stock, otherwise perfect, \$3.75. Slightly undersized outside width, otherwise perfect, \$3.50. With knot or check in forearm or stock without influencing strength, \$3.25. Checks in butt but otherwise perfect, \$2.75. Checks or knots near action or pistol grip, \$1.75. Stoeger Arms Corp., 507 5th Ave., New York. 11-38

BROWNING Over-Under, ventilated rib, single selective trigger, full and modified, very good, \$30.00. Savage .22 Hi-Power, Marble rear, Gold Bead from good, \$20.00, 2 boxes cartridges. Lovell .22-3000 Sukalle barrel, Remington Hepburn action, 8X Fecker, dies, shells, etc., \$60.00, very good. Colt Woodman 4 1/2, King sights, extra magazine, holster, excellent, \$27.50. S. & W. 44 Special, 4 1/2, King sights, Ivory carved grips, holster, excellent, \$35.00. Web snipe shoes, \$5.00. K-22, carved ivory grips, good, \$27.00. Colt O.P., 22 caliber, like new, \$23.00. No trades. M. A. Scherffus, Dickinson, No. Dak. 12-38

ENFIELD, remodeled stock, recoil pad and sling, very good, \$21.00. Woodman, excellent, 6 1/2 inch, \$24.00. .380 A.C.P., perfect in V.G. out, \$16.00. A. Spearing, 1422 W. Delaware, Toledo, Ohio. 12-38

REMINGTON Sportsman 12 ga. Auto 28", mod., Pachmayr white line pad, sheep lined case, beautiful grained stock, shells, new, \$35.00. John Novoth, 1402 E. Stewart Ave., Flint, Michigan. 12-38

B&H "FILMO" 121 Magazine 16 mm. F-1.5, Factory new, never used, \$130.00 camera, \$95.00, delivered U.S.A. First M.O. Geo. Brothers, Box 249, Pensacola, Fla. 12-38

FECKER 1 1/4," latest, with precision mounts, perfect, W52, standard, sling, perfect, case, \$80.00. S. & W. 38-44, perfect, \$30.00. Tell, 22, very good, \$45.00. Lefever DeLux 12-26" Skeet Double, mod, improved, very good, \$40.00. Lefever DeLux 20-26" Skeet Double, mod, improved, sheep case, excellent, \$40.00. S. & W. K-22 Ex. with holster, \$21.00. Winchester 71, 348, perfect, sheep case, \$40.00. John Culbertson, 1 West Main St., Madison, Wisc. 12-38

Accuracy Hangs on Align



(No. 7 of 12 points which give sure-fire precision to all Smith & Wesson revolvers.)

Accuracy of revolver action depends largely on the perfect alignment of cylinder and barrel. Smith & Wesson guarantees this accuracy with the front and rear cylinder locks operating in hardened steel bushings. We would be glad to send full details of our various models on request.

SMITH & WESSON
Springfield MASSACHUSETTS
SINCE 1854

BULLS EYE AND SHARPSHOOTER PISTOLS

As Christmas gifts will be appreciated by any man or boy and many women and girls as well. Absolutely safe, surprisingly accurate and easily operated. Cost only 1 cent for 100 shots. Nationally known instructors recommend them for serious pistol practice for experts as well as beginners. Free circular sent on request.

Ask your dealer first—\$1.50 to \$2.75.
BULLS EYE PISTOL MFG. CO.
Box 484 Rawlins, Wyo.

Special '37 Rifle Cal. 30-06

Assembled, refinished and proof tested. Used selected barrel, 24", heat treated receiver, properly head spaced. Suitable for Legion Posts and Hunting. Length 44", weight 9 lbs., shipping weight 16 lbs. Price \$18. New Catalog, 288 pages for 50 cents. New circular for 36 stamps.

FRANCIS BANNERMAN SONS 501 Bway. N. Y. City

RICE PEEP SIGHTS FOR Krag and ENFIELD



Rifles, \$1.00. For Springfield Rifles \$1.50. Elevation and windage. Easily mounted. Krag Barrel Receiver Fillets, 616. Springfield Sporter Butt Plates, 50¢. Grip Caps, 35¢. Satisfaction or money refunded.

LEROY RICE
336—7th St., Elyria, Ohio

IDEAL No. 10 Tool, 30-06, \$5.00. Fecker High-Power Eyepiece, \$6.50. J. E. Gebby, 344 Knecht Drive, Dayton, Ohio. 12-38

WINCHESTER 70 .220 Swift, Noske 4X type "B," lowest side mount, not quick detachable, perfect, \$90.00. Elwood Gosse, 822 Swift, Sheboygan, Wisc. 12-38

PERFECT, unfired Stevens Walnut Hill, 22 L.R., \$15.00. R. C. Craft, 34-17 146th Street, Flushing, N. Y. 12-38

GIVE MERIT SHOOTING ACCESSORIES FOR XMAS

More Scope For Your Money
Greater light-gathering ability permits higher power. 24X Large field of view. Spot your bullet holes easier. Less eye fatigue means better scores. A special micrometer focusing adjustment provides for push-pull coarse adjustment and screw fine adjustment. Objective lens 55MM. Relative brightness 40.5. Weight 2 1/2 lbs. Sh. wt. 4 lbs. MERIT PRODUCTS are all fully guaranteed.

NEW CLICK ADJUSTED Iris Shutter Disc

The only instantly adjustable and absolutely accurate peep sight disc. Simply open or close the Iris Shutter for the desired aperture. Target disc \$2.75. Hunting disc \$2.50. Prep. ord. State make and model of sight and rifle when ordering.

OPTICAL ATTACHMENT

The greatest single aid for pistol shooters who are bothered with blurring sights and target. Simply open or close the Iris Shutter for the aperture that gives you the clearest definition. Instantly attached to glasses with positive holding rubber suction cup. Easily moved to any position on either lens. No hooks, springs or clamps to scratch the glass. Weighs only 56 grains. \$2.75 Prepaid.

MELTING POT Cast Better Bullets Faster

800 to 500 per hour with a single cavity mold. No more bother with slag, dross or lead. Gravity feed, controlled by a simple and efficient valve, gives the proper pressure to cast perfect bullets all the time. Works on ordinary gas stove, gasoline stove or plumbers fire pot. Holds 20 lbs. \$6.50 P.O.B. Sh. wt. 8 lbs. MERIT PRODUCTS have been fully tested and approved by all leading shooting authorities. Order them through your dealer or direct. Cash or C.O.D. CIRCULAR FREE.

MERIT GUN SIGHT CO., DEPT. A.
3764 Ruby Street Oakland, Calif.

Mid-Western Rust-Proof SHEEPSKIN CASES \$4.25 for Rifles with Telescope Sights



Made of select tough-leathered sheepskin. Thick wool on inside is of uniform depth assuring every part of your gun the same adequate protection against bumps. This thick wool also absorbs all moisture and passes it off through the leather. Cowhide split leather is used to reinforce case at muzzle, breech and butt so the case will withstand hard usage for years. There's nothing better for storing a valuable gun and it furnishes real protection to finish and delicate sights in carrying rifle to range or shooting grounds. For those who have rifles with scopes that are undemountable this case is truly a necessity. If your rifle is equipped with a demountable scope you need no longer be bothered with taking the scope off. To determine Style Number to order, measure from butt plate to tip of muzzle in a straight line, then check with chart below and order at these factory-direct prices:

For Rifles with Telescope Sights	
No. 1423 For overall length 40" to 43"	\$4.25
No. 1424 For overall length 43 1/2" to 46"	4.50
No. 1425 For overall length 46 1/2" to 48"	4.75

Send check or money order or pay postman upon arrival.
BERLIN GLOVE COMPANY, 603 Fox Avenue, Berlin, Wisconsin

REVOLVER CASES \$1.00



Same sturdy construction as the gun cases. The wool keeps the finish on revolvers and pistols in perfect shape. Ideal for storing guns away or for carrying in shooting kit. Flap is closed with snap fastener. Attach dollar bill to your letter or send check or money order. Be sure to state make, caliber and length of barrel of pistol or revolver for which you are ordering the case.



SEDGLEY Springfield Sporters

Now Equipped with New Safety Firing Pin, Patented, and New Speed Lock at no extra cost.

The Christmas Gift Ideal

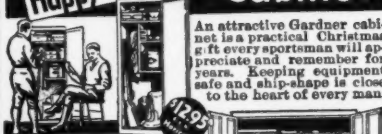
In twelve calibers for big or small game, or will book ordersto your specifications for a custom-made rifle. Let us estimate. Prices Start At \$71

Springfield .30-06 Actions Used on All Models
Hand Book and Catalog on Request

R. F. SEDGLEY
INCORPORATED
Manufacturers. Est. 1897
2311-17 N. Sixteenth St.
Philadelphia, Pa.

Pacific Coast Representative
KING GUN SIGHT CO.
171 2nd St., San Francisco

for a Merry Xmas and a Happy Outdoor Year Gardner's Sportsman's Cabinet



An attractive Gardner cabinet is a practical Christmas gift every sportsman will appreciate and remember for years. Keeping equipment safe and ship-shape is close to the heart of every man.
MODEL D. S. 15
Endorsed and used by thousands of leading sportsmen everywhere. Electric-welded, heavy all-steel construction. Nickled door-handle, hinges. Green or brown enamel finish. Built-in lock \$1.00 extra. Single door model D. S. 15, above, 65 x 22 x 12 in. has a 4 gun and big tackle capacity. Double door model D. S. 40, right, has 4 gun and EXTRA LARGE shelf capacity. At leading dealers - or direct. Send money order for prompt shipment. Write for FREE, illustrated color folder. GARDNER MFG. CO., 812 Barstow St., Horicon, Wis.
MODEL D. S. 40
\$16.75 f.o.b. Horicon

IMPROVED BULLETS

for all popular high-power sporting rifles are now made with tough non-fouling cupro-alloy jackets, available in calibers from 25 to 8 m/m, with a selection of designs and weights to fill the most exacting requirements of the sportsmen.

Note: We do not export

WESTERN TOOL AND COPPER WORKS
P. O. Box 856
Oakland, Calif.



HUMMEL Self-Moistening TARGET PASTER

Sanitary. Convenient. Economical. Suitable for large and small bore shooting. Every shooter should have one in his kit. Price, \$2.25, with tape fillers.

W. E. HUMMEL,
21 W. Ortega, Santa Barbara, Calif.

USED BARGAINS! Lyman No. 438 Scope \$10.95. Unertl 6X Scope with Lyman click mounts \$29.50. .30 or 9 m/m Luger 3 3/4" barrel good \$16.50. .38 Spanish Revolver \$7.50. Colt Revolver Cal. .41 fair \$6.95. J. Warshaw & Sons, First & Madison-BB, Seattle, Wash. 12-38

D.C.M. SPRINGFIELD Sporter, ivory bead, 48, Fecker blocks, sling, inside excellent, outside good. \$40.00. Bertrand Compere, 2232 Cliff, San Diego, Calif. 12-38

SMITH & WESSON .44 Triple Lock, 5" barrel, excellent, finish changed nickel to blue, factory job. \$37.50. No trades. C.O.D. inspection allowed receipt \$3.00. A. M. Langley, 1629 Marshall, Houston, Texas. 12-38

D.W.M. LUGER. 7.65 3 3/4 inch Audley holster stock, three magazines, 200 Kleenbore cartridges, excellent, \$30.00. John Lynch, R.F.D., Saundertown, Rhode Island. 12-38

COLT Official Police Cal. 22 latest, perfect, new, \$24.00. S. & W. M&P 38 Special 4", perfect, \$21.00. Savage .32 Auto, excellent, \$9.50. Winchester M92 Carbine Cal. .44-40, brand new factory grease, \$24.00. C. C. Tropp, 17 Compton, New Haven, Connecticut. 12-38

WINCHESTER Heavy S.S. Zipper, D.S. triggers, new Savage barrel, blocks, sights, shells, \$30.00. Wollensak 4X, mounts, \$5.00. Edward Knobloch, 1552 Victory Boulevard, Port Richmond, N. Y. C. 12-38

RANGEMASTER, excel. New June 1st. \$48.00 money order please. Dee Davis, 4720 W. 64th St., Chicago, Illinois. 12-38

REMINGTON 37, excellent, fired 800 times, \$50.00. Lyman 5-A Scope, excellent, \$25.00. C. B. Morton, 1205 Florida Ave., Bristol, Tenn. 12-38

PISTOL SHOOTER! Target Sights fitted to your fixed sight, Colt and S. & W. Strong, fully adjustable. \$5.00. Stamp for description. Robert J. McFeeter, 76 So. 10th Street, Newark, N. J. 12-38

52 WINCHESTER. H.B., 17A, Fecker, plain mounts, 34" 10X, \$65.00. Very good. G. E. Brayton, Fremont, Nebr. 12-38

32 COLT AUTO, new, \$16.50, same rebled, very good, \$11.00; Woodsman 6 1/2" and 4 1/2", both new Hi-Speed \$25.50; Bisley 32-20 rebled, very good, \$16.00; S. & W. 32-20, very good, \$16.50; S. & W. 4" heavy 38, very good, \$16.00; 93 Marlin 30-30, very good, \$18.00; 92 Winchester 25-20 new octagon barrel 29S Weaver, \$24.00; rare 44-40 lever action repeating Colts rifle shooting condition, \$14.00; money orders, no trades, stamp please. Harry Abbott, 219 E. Harrison, Iowa City, Iowa. 12-38

COLT ARMY, heavy barrel 38, H&R Sportsman, H&R N.R.A., Stoegers 7.63 pistol, Mauser Sporter 8 mm, Ross Sporter .303, Stevens 44 1/2" Niedner Magnum, Stevens 47 Target 22 short D.S. 48 rear, Reising pistol. WANT—Targetsport. Dr. H. H. Ott, Gresham, Oregon. 12-38

KRAG CARBINE, good, with extra, new barrel, \$12.00. 9 m.m. Luger, 8", like new, stock, \$23.00. S&W 45 Schofield, blued, tools, good, \$17.00. S&W 32-20 6" nickel, good, \$16.00. Victor Scoby, Fulton, Iowa. 12-38

SPRINGFIELD SERVICE, \$24.00. .38 Colt Military Automatic, \$17.50. .25 Mauser Automatics, excellent, \$15.00, very good, \$14.00. Colt. 45 Automatics, \$17.00. Details and list of guns for stamp. Sidney Alberman, 5413 Bartlett St., Pittsburgh, Penna. 12-38

17. ALL DIFFERENT Sharps Cartridges including the rare 45-3 1/4 and the 50-3 1/4. \$5.00. O. H. Dunham, 995 West Eldorado, Decatur, Illinois. 12-38

WINCHESTER BARGAINS: Model 21 skeet trap grade 12-26 with beavertail fore-end and single trigger. Excellent. Measurements 14 x 1 1/4 x 2. Cost \$148.00. Sell \$90.00. Model 70 30-06 Sporter. Excellent. Cost \$62.25. Sell \$49.50. Kimball Arms Company, Woburn, Mass. 1-39

K-22. EXCELLENT, with S&W grip adapter, fired 300 times. \$25.00. Woodsman, excellent. H.S., \$20.00. No trades. A. S. Bjornson, Devils Lake, N. D. 12-38

LATEST Model Winchester .52, heavy barrel, Marksman stock. Vaver sights, excellent or better, fired about 1000 rounds, sacrifice. \$57.00. Arthur Brewer, 1578 Dauphin, Mobile, Ala. 12-38

CARTRIDGES: 1200 .30-06 1918, 1 1/2 c. 600 M1 boattail, 3c. Any amount. Sheldon Brink, Walton, N. Y. 12-38

MUST a High Grade Target Rifle Cost a lot?



Would you like to own a target rifle that gives you every essential advantage possessed by rifles costing twice as much? If so, we suggest that you see a Stevens No. 416 at your dealer's. If he hasn't one in stock, he can get it for you promptly. Examine this rifle from butt to muzzle. Try its action. Adjust the trigger pull to suit your fancy. Compare it, detail for detail, with any

other target rifle within *twice* its price. Then, look at the accuracy test group shot from machine rest by that same rifle. Realize that its accuracy is *guaranteed*. You can take that rifle to the firing line and know positively that you are on an equal basis with any competitor, as far as the firearm is concerned. Send for literature.

J. STEVENS ARMS COMPANY
Division of Savage Arms Corporation
Dept. MS-15 Chicopee Falls, Mass.

STEVENS TARGET RIFLE NO. 416-2

\$24⁷⁵

COLT Woodsman Master Target, new, \$30.00. F. D. Hickok, Summer Street, Bradford, Penna. 12-38

EXCELLENT, Colt O.M. 38 Special, \$25.00. Colt M1917 45 cal., excellent, \$15.00. Wm. A. Misk, 1503 S. 61st Ct., Cicero, Ill. 12-38

GENUINE Mannlicher Schoenauer Carbine, very good, Cal. 6.5, barrel 18", double set triggers, leather trunk case, \$45.00. J. Walton, Box 1457, Tampa, Fla. 12-38

SCOPE OWNERS. The Pechar One Turn Micrometer Click Focus installed on Your Targetscope for \$15.00. The most accurate and convenient focus ever designed. Change from one range to another in 2 seconds. Pechar Targetscope. 1 1/4 Obj. 2 in 1 Power, \$85.00. 1 1/4 single power, \$77.50. 1 1/4, \$65.00. Complete with mounts. Scope clamps, \$1.00 per set. Recoil springs, \$2.50. Pechar Demonstrators 1 1/4 8X, \$55.00. 1 1/4 14X, \$65.00. Perfect. T. G. Crain, 1619 First Ave., Altoona, Pa. 12-38

WOODSMAN Hi-Speed, 4 1/2", perfect, original box, Heiser, \$25.00. Pre-war Mauser 7.63 mm. Auto Pistol, 5 1/2", good, wooden holster stock damaged but fully serviceable, \$30.00. Colt Police Positive Special, .32-20 6", fair out, good in, \$14.00. Winchester '94 Carbine, .30-20, fair out, excellent in, fired less than 100 times, Redfield 102 rear, gold head, \$20.00. Krag Carbine, 22", bore very good, \$12.00. Stevens-Springfield 156, 22 bolt action, excellent except stock scratches, blocks and swivels, accurate, \$9.00. Money orders only, inquiries answered for stamp. Dr. Willard Bartlett, Jr., 607 N. Grand St., Louis, Mo. 12-38

B&L PRISMATIC Scope, stand, leather case, extra 36.5X eyepiece, excellent, \$55.00. S&W K-22 Target Revolver, very good, \$20.00. National Graflex Series 11 Camera f3.5, Sportsman's case, f.6.3, Telephoto Lens, leather case, Crown Jr. Tripod, Direct View Finder, Sunshade and K-2 Filter, \$161.00 worth in excellent condition for \$85.00. Weston Model 650 Universal Exposure Meter, leather case, perfect, \$15.00. All F.O.B. Atlanta. T. A. Wilson, 299 Angier Ave., N.E., Atlanta, Ga. 12-38

COLT ACE, perfect, never fired, make offer. New No. 52 H.B., perfect, \$50.00. A. E. Munson, Jr., 2387 Davidson Ave., New York City. 12-38

ATTENTION M. L. SHOOTERS. Offering fine collection of M. L. rifles by famous makers, Hawkins, Somers, Hulett, Reinhard, Butterfield, Lawrence and others. In fine shooting order. Stamp for list. Kimball Arms Co., Woburn, Mass. 12-38

B&L 6x30 \$23.00; 10x50 \$48.00. Bush 12x46 \$55.00; 8x24 \$32.00. Many Binoculars, Scopes and High Power Sporters cheap. 7 m/m, 8 m/m and 30-06 Mauser Sporters \$32.00. Springfield Service \$21.00. Winchester SS Lovells \$30.00 and \$40.00. Hornet \$20.00. Fine Krag Hornet \$30.00. Krag 22 Nierder Magum, dies, \$34.00. Various old muskets; Revolutionary Flintlock; Kentuckies; Swords; C&B and Flintlock Pistols. 1816 North Flintlock \$26.00; Waters \$26.00. Ames Navy \$18.00. Pair Duellers \$22.00. Colt or Remington 44 Army \$15.00. Remington Double Derringer \$7.00. M&P Special 38-6" \$18.00. New 4 1/2" Woodsman, holster, \$29.00. 45 Auto \$16.00. 38-40-5 Bialoy \$18.00. 30-4" Luger \$17.00. New 7.63 Stoeger Mauser \$38.00. Hotchkiss Machine Gun, unserviceable, adjustable tripod, \$65.00. Stamp for interesting list, Antique, Modern. John Smith, Rambler Ave., Runnemed, N. J. 12-38

HOPPE'S
Gun Cleaning
PACK

Full Size
No. 9
Oil
Grease
Patches

All for
\$7.00

Right for Hunting Trips
EVERYTHING needed for gun protection. Handy. Book-let on care of guns included. Give Hoppe's Gun Cleaning Packs for Christmas. At your dealer's.
FRANK A. HOPPE, INC., 2321 N. 8th St., Phila., Pa.

Lawrence
Steer Hide
SHELL CASES
No. 20 Case holds full box of 20 rifle cartridges. Loop for belt. Give caliber. See your dealer or send 3¢ for Sporting Goods catalog.
\$2.50
THE GEORGE LAWRENCE CO., PORTLAND, OREGON

P-R-I-C-E R-E-D-U-C-T-I-O-N
\$3.—IMPROVED TRIPOD—\$3.
Cast aluminum. Micrometer adjustments, fits all scopes, money refunded if not satisfactory. Linseed Oil, Sperm Oil, Gun Oil or Powder Solvent, 30¢. Bluing Solution, 75¢. Stock Polish, 35¢. Write for circulars.
THE JAYMAC CO. Jackson, Mich.

UNERTL 1 1/4" 8X target scope, Lyman mounts, excellent, \$45.00. Winchester 22 L.R., S.S., \$20.00. Winchester Schutzen S.S. 25-21, tools, cases, bullets, \$30.00. Mirakel Starlux Binocular 8x20, excellent, \$15.00. S. E. Nelson, Fergus Falls, Minn. 12-38

STANDARD Winchester 52, 48J, 17A, with 8X Jr. Targetspot, good, \$55.00. Service Springfield, C stock. Service and N.M. Bolts. Very good, \$30.00. B. & L. Drawtube, very good, \$20.00. 3 1/2" Fecker 6X, very good, \$25.00. Wm. A. Powell, 2837 W. North Ave., Baltimore, Md. 12-38

25% REDUCTION from former prices on remainder my used rifles, shotguns, pistols, revolvers, modern and obsolete. List 5¢. Calvin Goddard, 3533 Quebec, Washington, D. C. 12-38

\$1.00 EACH Springfield Rifle Barrels. 30-06 caliber. Second hand, limited supply. Weil's Curiosity Shop, 20 So. Second Street, Philadelphia, Pa. 12-38

BISLEY TYPE HAMMER
EASY TO THUMB

You'll Shoot Better Hand-Gun Scores

GET our new G. & H. Bisley-type hammer for your Colt Officer's Model revolver—shown above. Shoot better rapid-fire scores. . . . Get a pair of our G. & H. walnut target revolver stocks. Fine quality checkered Circassian walnut for Colt or Smith & Wesson. Hand made, larger and wider than regular factory grips. Fit the hand, giving firmer hold and absorbing more recoil. Several styles. Write us today.

GRIFFIN & HOWE, Inc.
202-R East 44th St. New York, N. Y.

TARGET STOCKS **OTHER STYLES**

National Quality
INLETED GUN STOCKS
Inletted within 1/32" of correct dimensions. Guaranteed free of defects. Choin American Walnut, \$6; Fancy, \$10; Extra Fancy \$12; French Walnut, \$9 up; Circassian, \$10 up; Monte Carlo Comb, any grade \$1 extra. Send for Free Folder.
NATIONAL TARGET & SUPPLY CO.
Dept. R-73, 1253 28th St., N. W., Washington, D. C.

A Very Merry Christmas Shopping At "Hudson"

Order Your FIREARMS From This List

15 Only! Brand New Remington bolt action rifles, .30 S.L. in 25 cal. rimless with 48 Lyman and hooded front sight. Original factory boxes and factory guaranteed! Regular price \$72.95.
EXTRA SPECIAL. 25 Remington Cartridges, 117 grain, soft-point or Mushroom, non-corrosive. \$4.00 per hundred.

**SPECIAL
\$49.95**

Rem. Model 25A, 25/20 caliber only, 24" bl., \$23.95	Rem. Model 141 Gamemaster, 30, 32 or 35 cal., \$48.55
Rem. Model 25H, 25/20 or 32/20 cal., 18 1/2" bl., 23.95	Rem. Model 81 Woodmaster, 30, 32 or 35 cal., 62.95
Rem. Model 241 Speedmaster, 22 caliber, 25.65	Rem. Model 121 Fieldmaster, 22 caliber, 24.25
Winchester Model 94 Carbine, latest style 30/30 or .32 Spec., 20" barrel, ramp front sight, \$27.50	Winchester Model 53, 25/20 caliber, solid frame, \$26.95
Win. Model 92 Carbine 44/40 cal. 20" or 24" bl., \$26.95	Win. Model 60-A, 22 caliber, target, single shot 7.95
Win. Model 92 Rifle, 32/20 cal., 1/2 or full mag., 26.50	Win. Model 63 Rifle, .22 long rifle, automatic, 28.95
Win. Model 94 Rifle, 32/40 or 38/55 cal., 26" bl., 27.50	Savage 19 Target, .22 caliber, No. 10 receiver sight 24.95
Win. Model 71 Rifle, 348 cal. 20 or 24" bl. DeLuxe 51.95	New Marlin 39-A, lever action, .22 caliber repeater 26.95
Win. Model 70 Rifle, all calibers with open sights 34.95	Winchester Model, 97 Shotgun, 12 or 16 gauge, 30.40
Marlin Model 36, 30/30 or 32 Special cal., 24" bl. 28.95	

STOP! LOOK! READ! "House of Hudson" BARGAINS!!

85 Only! Genuine U. S. A. Krag Sporting Carabines, 30/40 cal. 22" bl., condition like new in and out.....\$19.85
78 Only! Remington rolling black single shot rifles, 30/40 Krag caliber in good condition.....5.95
4700 Only! Brand New Live Leather U.S.A. 1 1/4" sling straps. Soft and pliable. Postpaid, each.....1.00

THE FOLLOWING AMMUNITION PRICED PER HUNDRED

.22 Savage soft-point \$3.75; .25/20 S.S. black-powder \$1.50; .25 Remington Mushroom \$3.75, metal eased, \$2.75; .32 Remington Mushroom, \$4.00; metal eased, \$3.00; .351 Winchester soft-point \$3.50; .25/20 Winchester \$2.00; .32/20 Winchester \$2.00; 38 S&W Special Kleanbore \$2.50; 303 British, metal case \$3.75; 38/55, metal case, smokeless, \$4.00; 38/70 Win. s.p. \$4.00; .32 Winchester self-loading, \$2.50; 401 Win. self-loading, metal case, \$3.00; .43 Spanish, \$4.00; .43 Egyptian, \$6.00; .45/70 high-velocity, Kleanbore, \$6.00; Gov't .45/70 black, lead, \$4.00; Selected Gov't ammunition—1918 .30/06 \$2.25, 1934 Boatlift, \$3.50, late issue, \$4.50; .45 automatic, late issue, \$3.00. BARGAIN RIFMIRE CARTRIDGES (prices per 1000) .22 Remington automatic, \$4.00, .32 short or long, black, \$4.50; .41 short, black, \$10.00.

Stamp please, for Lists! HIGH GRADE USED RIFLES—USED SHOTGUNS—AMMUNITION.

\$2 Deposit on C.O.D.'s

FREE—Our NEW Catalog

HUDSON SPORTING GOODS CO., R-52 Warren St., N.Y.

Lyman JUNIOR TARGETSPOT SCOPE



A desirable, worthwhile gift For Christmas

Here's a gift that brings hours of happiness to anyone who loves hunting or target practice. Shooters acknowledge the remarkable brilliance of the polaroid tested lenses with their high degree of light-gathering power, the perfection of design and thoroughness of construction. There is genuine value in the Junior Targetspot for its popular price. Choice of the 6-power or 8-power, both offering extra wide field of vision. Comes

complete with 3-point suspension rear mount, front mount, bases, taps, drill, rubber eye cup and metal lens caps. \$45.00 f.o.b. factory, or at your dealers.

Lyman Targetspot, 8X or 10X, \$60 complete. Lyman Super-Targetspot in 10, 12, or 15 power, \$75 complete.

THE LYMAN GUN SIGHT CORP., 90 West St., Middlefield, Conn.

FOR THE SHOOTER'S CHRISTMAS!

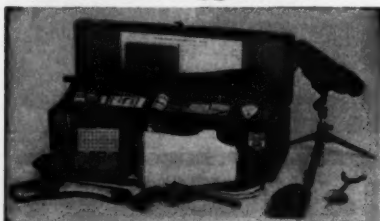
Don't send Christmas cards—Send a Dex Kleen Wiper, and his thoughts are of you each time he uses his gun. Dex Kleen Gun Wipers—Protect 100%.

At your Dealer—or write us; 25¢ postpaid

DECKER BROS.

Mason City, Iowa

Christmas Suggestions . . .



Badger Kit (not postpaid).....\$5.85
Badger "400" Shooting Jacket.....\$8.00
Badger De Luxe Scope Stand.....\$5.85
Croft and 10X Coats, Mitts and Cases
EVERYTHING FOR THE SHOOTER

Last December 95% of orders filled in less than 6 hours! Order early, but if your order does come late, we'll do our best to deliver before Christmas.

BADGER SHOOTERS SUPPLY Owen, Wis.
"Sure we trade"—"NEW Free Catalog"

BALLISTICS IS MAN'S PRINCIPAL NATIONAL DEFENSE!

Also—it is the interesting background of sporting arms and ammunitions promising continued advancements for your greater satisfaction! Long winter nights are just ahead! A set of our ballistics charts will make them pleasant and instructive for you!

For Free Ballistics Literature and Charts List, Send 6¢ for postage and handling to SPORTSMAN'S SCIENTIFIC SERVICE, 609 Jackson St., Aurora, Illinois.

GOERZ Scope, 4 1/2 power, A-1 condition, quick sale \$20.00. Original cost \$60.00. H. E. Bowles, Oakley, Idaho. 12-38

NEW Colt Official Police, 38 Special, 4", perfect, factory box, Marble cleaning rod, 50 cartridges, \$25.00. 1917 S&W .45, excellent, Heiser No. 125 spring shoulder holster, \$18.00. Ben Vaupel, Mt. Vernon, Indiana. 12-38

PACIFIC TOOL, New high speed dies, .38 special, .45 Colt. Extra .38 sizing die. Automatic primer. \$35.00. 1918 .30-06 ammunition, \$1.75 per 100. No trades. Robert Englert, 1305 East 63rd Street, Chicago, Illinois. 12-38

BARGAIN. 10X Targetspot, bluing slightly worn, otherwise excellent, \$35.00. 54 Hornet, fired 600 times, \$35.00. No trades. Charles Barnhouse, 27 Parkhurst St., Newark, N. J. 12-38

WINCHESTER 21 Skeet, 12, perfect, \$70.00. Parker V.H.E. Skeet 12, excellent, \$85.00. Francotte 12-32 ejector, excellent, \$75.00. Parker V. H. 12-28 single trigger, excellent, \$50.00. Winchester 54, 250-3000, 48, perfect, \$40.00. Lyman 5A click excellent, \$22.50. Lyman 438 click excellent, \$15.00. H. Van Winkle, Stone Ridge, N. Y. 12-38

FOX 16, C.E. grade, auto ejectors, 30 In., mod. & full, 6 1/4 lbs., 2 1/2 x 1 1/2 x 1 1/4, pad, sights, excellent, \$70.00. Cost \$124.00. Remington double 12-G, 30 in., mod. & full, auto ejectors, very good, \$30.00. Colts Officers Model Target 38, heavy barrel, very good, \$22.50. Colts 38 Super Auto, very good, \$22.50. C. E. Smith, Route 1, Box 22, Brentwood, Calif. 12-38

CLOSE OUT: 50 Smith and Wesson, model 1905, 38-4" blue, very good, \$16.50. John K. Carmichael, Inc., 6 Centre Market Place, New York, N. Y. 12-38

CROWN GRADE L.C. Smith 12 ga. 30" bbls., excellent, \$150.00 cash, no trades. B. M. Babb, 2116 Mass. St., Lawrence, Kan. 12-38

FINE Scheutzen Ballard, 22-3000, by Lovell, D.S. triggers, heavy barrel, accurate, tools, \$40.00. George Ingram, Box 805, Lindsay, Calif. 12-38

WINCHESTER M92, 25-20, very good, \$12.00. Remington M8 Autoloading, 32, good, \$26.00. Savage M99E.G., 300, excellent, \$30.00. WANT—Springfield, .30-06; Krag. Ray Nelson, Roy, Utah. 12-38

SELL OR TRADE

SPRINGFIELD D.C.M. Sporter, perfect inside, excellent outside, high serial number. Springfield M1, converted to Hornet by Sedgley, 5 shot magazine, Elliott Bros. Set Trigger, Scope Blocks, perfect in and out. Colt Woodsman, low speed, Patridge sights, fair to good. Perfect B&L Model R Microscope. Best cash offer, or consider high grade, fast camera in exchange. Stamp for reply. Edwin Smith, 136 E. Brown St., Blairsville, Pa. 12-38

SEDGLEY Springfield .220, Scope Blocks, detachable swivels, safety bolt, excellent, \$48.00. Trade even for S&W Magnum. Russell Elder, Griffin, Ga. 12-38

8 M.M. EXCELLENT Mauser Sporter Imported German work, hunting sights, swivels recoil and cheek, value \$125.00. Best cash offer or trade. Max Heimey, 608 N. Fountain, Springfield, Ohio. 12-38

STEVENS Armory .22 L.R., excellent in, good out, homemade hi-comb stock, Lyman Field, \$18.00. .45 S.A.A., 4 1/4, excellent in, fair out, \$12.00. "Modern Shotgun," Volume 1 (Burrard), \$3.00. WANT Targetspot, Hornet, Late .30-30 Carbine, Charles Hill, 503 1/2 N.W. Eighth, Oklahoma City, Okla. 12-38

MAGNIFICENT bulldog, English, worth \$200.00. Take \$75.00. S&W .357, like new, \$45.00. Cash, guns, what? A. R. Halley, 1721 Hildacrest, Huntington, W. Va. 12-38

MODERN GUNSMITH, perfect, autographed set. WANT—Reloading set for Swift or '06. Will pay difference. Jack Redden, Ketchum, Idaho. 12-38

STEVENS fancy Scheutzen .25-21, No. 44, d.s.t., 28", Stevens scope, 160 cases, mold, tool, all good, \$26.50. Colt SA .45, 4 1/4, reblued, ramp, good, \$12.75. Winchester .25-20 S.S., fair, \$4.75. P. S. Hollenbeck, Vienna, Missouri. 12-38

MARTINI, 30 International Match, \$90.00. 175 copies early AMERICAN RIFLEMAN, \$10.00. Engraved Ballards; Winchester Single Shots; Krag Sporter; Pistols; Reloadng Tools; Gun Books. WANT—Leica Camera. Dr. F. M. Calmes, 3227 Mersington, Kansas City, Mo. 12-38

BAUSCH & LOMB 6X30 Binoculars, reconditioned, optically perfect, outside good, \$22.50 cash. Will accept trades. Frank Coyle, 1170 Octagon Road, Camden, New Jersey. 12-38

22 REISING Automatic Pistol, excellent inside, good outside. 30-30 Savage takedown, good. WANT—Winchester 12-12; Remington Sportsman; Savage Over-Under Deluxe. H. J. McKinnon, Clarinda, Iowa. 12-38

COLT BISLEY .45, 6", good in, fair out, \$14.00. S. & W. 44 breakopen 6 1/2", good, \$9.50. Dreyse 11 mm. revolver 7", excellent, holster, \$9.00. C. C. Tropp, 17 Compton, New Haven, Connecticut. 12-38

Latest type bullets in most practical loads for all purposes, all calibers.
SMITH'S CUSTOM LOADS
Middlebury Vermont

SELL OR TRADE—Perfect. Hi-Standard B. 4 1/2 inch. holster, \$14.00. WANT—S. & W. Hammerless. J. D. Carter, Spencer, N. C. 12-38

STANDARD Winchester 52, latest. Redfield front, Vaver rear, sling. Fired 200 times. WANT—Winchester 70 Hornet or .30-06 or best cash offer. Christian Becker Precision Balance in glass case, accurate 1/650 grain. Cost \$110.00. WANT—Bausch & Lomb Prismatic Scope or what? R. C. Languth, 2007 Fargo Avenue, Chicago, Illinois. 12-38

B&L PRISMATIC \$42.50. Pacific .30-06, tool steel, \$17.50. Custom Hornet, 54, 48, \$55.00, excellent, photo. Rifleite \$7.50. \$125.00 8 volume Business Administration Course, new, \$20.00, camera, or gun. Mauser .30 cal. pistol, wooden stock-holster, leather holster, 120 cartridges, \$45.00, very good. Custom D.C.M. Sporter, new barrel, bolt, Redfield, Pachmayr, \$75.00. Winchester 42, 3" .410, perfect inside, \$25.00. 500 Hornet empties. WANT—70 Lovell. G. H. Holliday, Life Member, Antioch, California. 12-38

REMINGTON 30S, .30-06, excellent. Sedgley adjusted, Lyman blocks, Q.D. sling, \$45.00. Will trade for high grade, magazine Hornet. Robert L. Rogers, Woodberry Forest, Virginia. 12-38

COLT ACE, perfect, \$30.00. Government Model 45 Auto, \$15.00. 38 Special S. & W. Military & Police Model, very good, \$15.00. Browning Over & Under Trap Grade, ventilated rib, perfect, \$60.00. Remington 12 ga. double, fair, \$15.00. Very good Winchester 52 Speedlock, Goss rear, 17A, special cheek piece stock, \$30.00. Winchester A5 Scope micrometer mounts, \$20.00. WANT—Colts Officers Model Target 22 and 38. B. A. Warner, 2512 Pleasant Valley, Altoona, Penna. 12-38

W52 H.B. SPEEDLOCK. 48 and 17 sights. Very good, \$42.50. WANT—70-06. K-22. Renn Torbert, Kalispell, Mont. 12-38

SILVER FOXES. Breeding stock. Will take guns in trade. Julius Nelson, Frost, Minnesota. 12-38

D.H.E. PARKER 20 ga. shotgun, good, \$60.00. S & W. 44 Russian D.A. engraved, pearl grips, good, \$25.00. Colt 22 Camp Perry, last model, \$25.00. Lyman 8X Targetsport Jr., fine, \$32.00. WANT—New Model W52. K. F. Frazer, Davis Bldg., Portland, Oregon. 12-38

FOUR good carbines, two 30-30 Winchesters, two Kraggs, \$13.00 each. \$25.00 pair. New Winchester 32-20. 65, excellent 25-35 64, \$25.00 each. E. F. Powell, 4426 Thorn, San Diego, Calif. 12-38

TRADE

TRADE—Guns or other shooting equipment for scopes, binoculars, Colts, pistols, and revolvers, reloading tools or sights. Exchange Dept., Pacific Gun Sight Co., 355 Hayes St., San Francisco, California. 12-38

TRADE—Excellent B&L Drawtube plus cash difference for 10X Super Targetsport, 10X 1 1/2 inch Fecker or 10X Unertl Scope. L. R. Rhine, M. D., 808 Peoples Bank Bldg., Tyler, Texas. 12-38

TRADE—G.H.E. Model Parker Double 16 ga. Modified and Full 28 inch, inside excellent, outside good, for G.H.E. Model Parker Double 410 ga., 3 inch Chamber Modified and Full 28 inch in same condition. Paul Freese, Marietta, Ohio. 12-38

TRADE—Brand new pair Zeiss Silvarmar 6X Featherweight for Model 70 Calibre .30-06, 270, or 7 millimeter. J. W. Keene, 2296 Moreno Drive, Los Angeles, Calif. 12-38

TRADE—St. Louis Hawkins Rifle, for Colts or other antique arms. Geo. McQueen, 5111 Grant, Omaha, Nebraska. 12-38

TRADE—ANY MAKE or model arm unfired for U. S. Flintlock pistols or early Colts. Wm. M. Locke, 3607 Ault Park Road, Cincinnati. 12-38

TRADE—4"x5" Graflex, Kodak Anastigmat Lens, f.4.5. Revolving Back, 7 1/2" focus, cowhide case, \$65.00. Drawtube Achromatic Telescope, 45 power, \$20.00. WANT—Case .30-06 ammunition, cash. Harry Darr, Sidney, N. Y. 12-38

WANTED

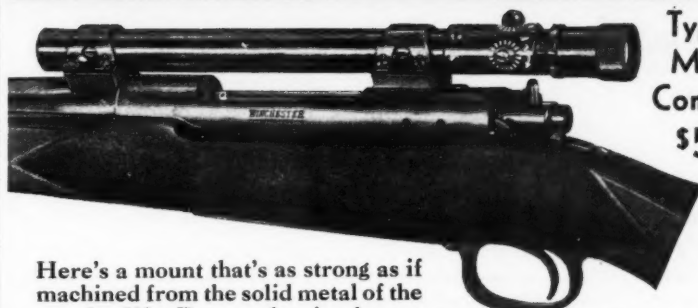
WANTED—Remington 11E Sportsman 16-28, rib. C. F. Tilton, Ashland, Oregon. 12-38

WANTED—Binoculars, Bausch & Lomb, Zeiss or Hensoldt 6x30 Power; Individual type of focusing. Robert Zoeller, Box 4, Woodbury, Conn. 12-38

IDEAL CHRISTMAS GIFTS

Embroidered Necktie with crossed rifle design. 60¢ ea.; Handkerchiefs, with either crossed rifle or pistol design, quality linen, men's size, 20¢ ea. J. F. NOVAK CO. Cleveland, Ohio 12-38

The Scope becomes part of the Rifle with the NEW WEAVER Type B Mount



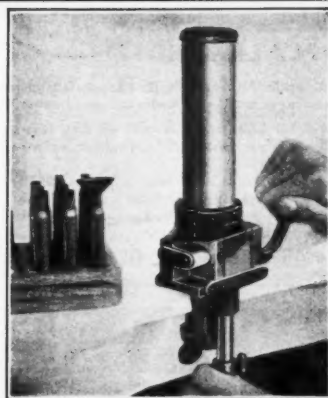
Type B Mount Complete \$5.50

Here's a mount that's as strong as if machined from the solid metal of the gun itself! Extremely simple—no joints or hinges to work loose—extremely low, extremely sturdy—no excess weight.

Illustration: Model 330 Scope, New Type B Mount, \$31 complete. Other scopes, \$8.25 to \$36 with Type B Mount; \$4.75 to \$52.50 with Type T Mount. Write Dept. 1 for illustrated folder.



W. R. WEAVER CO. EL PASO, TEXAS



THE FINEST GIFT FOR ANY SHOOTER!

Accurate, uniform powder charges are the fundamental requirement for fine hand loaded ammunition. That is why shooters everywhere use the B&M "VISIBLE" double chamber Powder Measure. Order one today—it's the ideal gift for any shooter.

BELDING & MULL

George McG. Fryberger, Successor
830 Osceola Road
Philipsburg, Pennsylvania

Bond Double Cavity Bullet Mould



LOADING TOOLS and COMPONENTS

Send 10c for latest catalog on hand loading
MODERN-BOND CORP.
813 West 5th Street Wilmington, Del.

RELOADING TOOL HEADQUARTERS

GOLDEN LUBRICANT—superior quality, 25¢ per stick. New and used Reloading Tools, Accessories, Ammunition Components. Special lot, .45 Auto primed cases. Write for prices. Autographed copies of the "Handloader's Manual" are available; also all books by Samworth.

MAJOR EARL NARAMORE
26 Cherry St. Meriden, Conn.

WANTED—Model 1872 32 D.A. S&W with square side plate on left side, double fluted cylinder. New Departure S&W with lever barrel release on left side. Sale: Slocum, \$9.00; Sharps 30 Cal. 4/S, \$6.00; Colt Philippine fine \$15.00; Colt 1909 Army fine \$14.00; Colt Lightning good \$5.00; Colt 1861 poor \$6.00; Savage 36/P \$10.00; Savage Auto, new, \$10.00; 25 more, list. Fred Moats, Courthouse, Warren, Ohio. 12-38

WANTED—Colt .45 Automatic. Howe's Modern Gunsmith. Hoyt Holbrook, 1919 Titus Street, San Diego, California. 12-38

HANDEE

TOOL OF 1001 USES

THIS YEAR GIVE HIM A HOBBY

Men and boys of all ages satisfy their inherent urge to make scores of useful articles with the famous Handee.



A WHOLE TOOL SHOP IN YOUR HAND

This amazing tool and your choice of accessories do a multitude of jobs on all materials. Set up shop wherever there is an electric outlet. De Luxe Model weighs 12 oz. 25,000 r.p.m. \$18.50. Postpaid, with 6 Accessories.

ULTRA DE LUXE SET
A treasure chest. De Luxe Model and 27 popular Accessories in metal case. This practical gift will be appreciated and used for years. \$25.00, postpaid. Project Book included.

STANDARD MODEL
20,000 r.p.m. Weighs 16 oz. \$10.75. Postpaid, with 3 Accessories.

200 ACCESSORIES
Quality built. Largest assortment, one for every job. See at dealers or in catalog.

GET A DEMONSTRATION

at any store or order either model on 10-Day Money-Back Trial. Catalog Free.

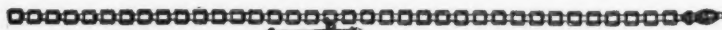
Chicago Wheel & Mfg. Co. 1101 W. Monroe St., Dept. AR, Chicago, Ill.

☐ Send Catalog ☐ De Luxe Model ☐ AR-12
☐ Ultra De Luxe Set ☐ Standard Model ☐ Send C.O.D.

Name
Address

□ Buy A Gift to Please Her

A stylish, new, well-made, beautifully finished bracelet with her favorite gun—22 or 30 caliber rifle—revolver—22 or 45 caliber automatic. Finished in 24-karat Gold Plate with your choice of guns



Each Bracelet in an Attractive Gift Box

Illustration about one-half actual size

Finished in 24-karat Gold Plate, with your choice of guns, for \$1.00; Sterling Silver, \$2.50.

GENE MITCHELL
V. H. BLACKINTON & CO.

P. O. Box 261, Ben Franklin Station

Washington, D. C.



ORDER TODAY! SUPPLY LIMITED!

A beauty! The kind of a gun case everyone wants—at the new low price of \$2.50 to \$2.90. Popular demand makes this new price possible.

Sheepskin offers real protection against rust, also protects sights and finish. Case is convenient for carrying, perfect for storing. Wool absorbs moisture, sweat, dampness. Case is reinforced with sueded calf-skin at muzzle, breech, top binding and flap. Elk-grain cow-

hide handle. As beautiful as it's efficient. Our guarantee says you must be satisfied or case may be returned.

HOW TO ORDER: Made to fit all shot guns and rifles that do not exceed 12" circumference at breech, 4" at muzzle—

Guns 41 to 45 inches long.....	\$2.50
Guns 44 to 46½ inches long.....	2.70
Guns 47 to 50 inches long.....	2.90

Send Check or Money Order to—

OUTDOOR EQUIPMENT CO., Dept. R-128 • 45 OGDEN AVE., OSHKOSH, WIS.

LAMBSKIN GUN CASE

For the ideal Christmas gift "from Maine to you" for only \$3.75! "Nichols-made for Quality." Full-length; genuine leather binding and handles; strong leather reinforcement around breech, butt and muzzle. Universally approved by expert sportsmen. When ordering give length over all. \$1.00 extra for guns with telescope sight. No extra charge for bolt action except the new 52 and Model 37 which are 75 cents extra.

Write for New FREE Fall Catalog.

Mrs. Hunting, Camping and Fishing Equipment.

R. C. NICHOLS CORPORATION - 77 Main St., Yarmouth, Maine

NOW \$3.75

BE A WINNING MARKSMAN!

\$14.00 TRIPOD \$7.50

Even champions depend on spotting scopes. Wollensak's 20-power scope can improve your scores, too. So fine optically it shows a .22 hole in black at 100 yds.—clearly. Be a winning marksman. Use a Wollensak scope. At stores, or direct, post-paid (or C.O.D.). Money-back guarantee.

USE AS TELESCOPE!

Ideal for hunting trips, boat, moose travel. Other telescopes from 8-power, \$3.75, to 45-power, \$47.50. Write for FREE Book!

WOLLENSAK OPTICAL COMPANY
146 HUDSON AVENUE • ROCHESTER, N. Y.

WOLLENSAK

THE MAN WHO SAVES THE RIFLEMAN MONEY

My stock of the highest grade merchandise surpasses that of any other dealer in Rifle Accessories. The thousands of Riflemen who attended Camp Perry this year learned the truth of this statement. It was a pleasure to attend my thirty-fourth National Matches and again greet my many friends. I will continue to furnish them and my new friends the best at most reasonable prices. Send 15¢ in stamps for Catalog No. 11.

P. J. O'HARE
552 Irvington Ave. Maplewood, N. J.
Largest dealer and manufacturer of Rifle Accessories in America

WANTED—Used guns as part payment on Atlas power tools. Balance terms. Catalogues. Huizenga Gunshop, Zeeland, Michigan. 12-38

WANTED—Perfect 45-70 Springfield Carbine, Cadet, Officers or Infantry Rifle. H. Karvonen, 1001 E. Second, Aberdeen, Wash. 12-38

WANTED—Mann's Bullets Flight. High-Wall Winchester, 44½ D.S., Ballard D.S., Sharps Borchardt. Must be reasonable. Clarence Carter, 115 N. Frink, Peoria, Ill. 12-38

WANTED—S. & W. K-22. State condition and price. Walter Flinn, 417 Oakwood Ave., Highland Park, Illinois. 12-38

WANTED—Loading dies for .30-40 .25 Remington and .32-20 to fit B&M Mod. 26 and Bond B tools. Several good moulds, metal cased .311 bullets, electric melting pot, lapping rod, smokeless steel barrels .22, .25 and .30 calibre. Micrometer sights for Springfield, Enfield, Mauser 98 and Krag. Good hunting scope in Redfield mounts for Springfield. Dunlap Roddey, Rock Hill, South Carolina. 12-38

WANTED—22 Cal. Springfield M1, excellent to perfect condition. Price and details in first letter. Cash. Dallas O. Burger, Bel Air, Md. 12-38

WANTED—Winchester 45-70 repeater or single shot with perfect bore. Also Winchester high wall S.S. action. E. D. Adams, 7047 Horner, St. Louis, Mo. 12-38

WANTED—52 Standard. Give complete description, number, price and equipment. Geo. Shaw, Zion, Ill. 12-38

WANTED—Two Brockway Muzzle-Loading Rifles. One Percussion, one using primed shell. Samuel Clark, Jr., Waterville, Maine. 12-38

WANTED—10 gauge Magnum, single trigger, 32 inch barrels, for cash. N. Cox, 721 7th Avenue South, Great Falls, Montana. 12-38

WANTED—Springfield, Enfield, Krag Rifles, Winchester Model 95 Rifles, Krag Ammunition, 45-70 Ammunition. Cash or Trade. J. Warshaw & Sons, First & Madison-BB, Seattle, Wash. 12-38

THE TRADING POST

Bargain lists and announcements by the makers and distributors of everything used by active outdoorsmen and sportsmen collectors. New advertisers are required to furnish at least one bank and two business references. We believe they are all straight shooters and thoroughly reputable, but we request an immediate report of any unsatisfactory dealings.

FIREARMS—GENERAL

CLOSING OUT! Our American and English cartridge revolvers. Send for list. Stamp please. Kimball Arms Company, 220R Cambridge Road, Woburn, Mass. 12-38

WINCHESTER 70 Standard, .220 Swift, with Lyman Junior Targetspot, 8X, sheepskin case, perfect, \$85.00. Hudson, R-52 Warren Street, New York, N. Y. 12-38

CHRISTMAS PRESENT with each Remington 37. Price \$70.00. Marble-Goss rear. Choice of any front sight. Will give you free an elk hide trim sheepskin-lined case. Value \$6.00. Westchester Trading Post, Mount Vernon, N. Y. 12-38

LEE ENFIELD Rifle, calibre 303, regulation sights, fine condition, \$19.50. Winchester Model 52 Target Rifle, Speed Lock, regulation sights, also equipped with four power Malcolm scope, fine condition, \$57.50. Winchester Rifle, lever action, Deluxe model 94, calibre 32 special, half magazine, fine circassian walnut stock, checkered, full pistol grip, takedown, cost \$125.00, fine condition, \$42.50. Illustrated catalog, new and used, modern and antique guns, send coin, 25¢. Public Sport Shops, Dept. R-7, 13 So. 16th Street, Philadelphia, Pa. 12-38

BARGAIN DAYS ARE HERE AGAIN! See our advertisement on Page 56. Hudson Sporting Goods Company. 12-38

FREE BARGAIN CATALOG! New and used guns, hunters supplies, tackle, golf clubs, jewelry, musical instruments. We buy, sell and trade. Write Klein Sporting Goods, Department "R," 508 South Halsted, Chicago, Ill. 12-38

FREE! FREE! Money-saving, illustrated Sporting Goods catalogue. Target pistols, shotguns, rifles, gun sights, hunting clothing. See What You Save! Lustig Sporting Goods Company, 1024 17th Street, Denver, Colorado. 1-39

GRIFFIN & HOWE Springfield 22 Hornet, with Hensoldt Ziel Dialyt 4X Scope, \$120.00. Hudson, R-52 Warren Street, New York. 12-38

SOMETHING FOR CHRISTMAS. With each 52 latest model heavy barrel Winchester, Marble-Goss rear, choice of any front sight, price \$71.40, we give you free an elk hide sheepskin-lined case as a Christmas present. Westchester Trading Post, Mount Vernon, N. Y. 12-38

10-X COATS, GUNCASES, GLOVES
WILEY ELECTRIC
GUILE OLEAN, N. Y.

USED: B&L Prismatic, optically perfect, finish worn, 19.5 eyepiece, \$37.50. B&L Drawtube, perfect, \$23.50. Remington Rangemaster, excellent to perfect, \$50.00. Sample Rangemaster, factory condition, \$55.00. Sample heavy barrel 52 Marksman Vaver telescope height sights, factory condition, \$60.00. 2, Standard Speedlock 52's, 48J rear and 17A front, very good, \$32.50 each. Heavy 52 Speedlock, 17A front, factory rear, perfect, \$38.00. Remington Model 141, .30 caliber, very good, \$26.50. Many other used bargains, list free. J. L. Vincent, Sporting Goods, Aud, Missouri. 12-38

S. & W. TARGET .44 Special, excellent, \$29.75. Also one very good, \$23.50. Hudson, R-52 Warren Street, New York. 12-38

L. C. SMITH double barrel hammerless shotgun, crown grade, 32" barrels, automatic ejectors, cost \$300.00, fine condition, \$100.00. Remington automatic shotgun, model 11, 12 gauge, 26" modified, like new, \$32.50. Winchester autoloading shotgun, 12 gauge, 26" cylinder bored, fine condition, \$27.50. Illustrated catalog, new and used, modern and antique guns, send coin. 25¢. Public Sport Shops, Dept. R-7, 13 So. 16th Street, Philadelphia, Penna. 12-38

COLT New Service Target, .44 Special, 5 or 7 1/2", perfect, \$37.50 each. Hudson, R-52 Warren Street, New York. 12-38

ATTENTION of Target Shooters and Gift Hunters. Remington 37, \$67.50. Stevens 416-2, \$23.25. Winchester 60-A, \$7.50. All others priced accordingly. Scopes make good gifts. Weaver's, 29-S, \$10.40; 344, \$7.00; Swaps accepted, no list, write wants. Junior Deters, Route 3, Holland, Michigan. 12-38

S&W .357 Magnum, 5" or 6" barrel, perfect, \$45.00 each. Outdoorsman 38-44 Target, excellent, \$34.00. Hudson, R-52 Warren Street, New York. 12-38

CHARLES DALY Hammerless 3 bbl. 20 ga. and 30-30, 7 1/4 lbs., perfect \$85.00. Colt S.A. 38 Special 5 1/2", ivory stocks, perfect, \$24.00. Kirkwood Bros., Inc., 23 Elm St., Boston, Mass. 12-38

NEW REMINGTON Model 11, Automatic shotguns, any gauge, \$42.50. Remington Rangemaster, \$61.25. Winchester Model 52's any sights; B&L Scopes, all Freeland Stands; Browning Shotguns and others, all proportionately low, write me your needs. J. L. Vincent, Sporting Goods, Aud, Missouri. 12-38

AMMUNITION & RELOADING SUPPLIES

PACIFIC RELOADING TOOLS in trade for good used rifles or other shooting equipment. Address Exchange Dept., Pacific Gun Sight Co., 355 Hayes St., San Francisco, Calif. 12-38

RELOADING TOOLS, B&M for .30-06 and .45 ACP. looks fair, does A-1 work. \$15.00. Vion 40X Spotting Scope, optically perfect, \$11.00. Lewis Raemon, Anniston, Ala. 12-38

SHELLS. Winchester 10 gauge smokeless B.B. and No. 3 shot, special, 75¢ per box of 25. Traps for Muskrat, Skunk, Mink, Martin, etc., Gibbs & Son, 2 trigger, while they last, 49¢. Springfield rifle sling straps, while they last, 49¢. 30-40 Krag ammunition, late issue, \$3.00 per 100. Illustrated catalog, new and used, modern and antique guns, send coin, 25¢. Public Sport Shops, Dept. R-7, 13 So. 16th Street, Philadelphia, Penna. 12-38

HANDLOADERS! Stop Oxidation! Use everlasting charcoal L-B 46. Large carton, \$1.00 postpaid. Gray Chemical Company, Routlette, Pa. 12-39

"IPCO" COLLOIDAL BULLET LUBRICANT eliminates leading. Box \$1.00. IPCO Colloidal Wads for better groups. Box \$1.00. (Sharpe's Formulas.) Industrial Products, 146 Summer, Boston, Mass. 12-38

THE JORDAN MULTIPLE RELOADING PRESS. An extremely accurate and strong press. All dies custom made. Reloading supplies. Write for bulletin. L. W. Jordan, Brookville, Pa. 12-38

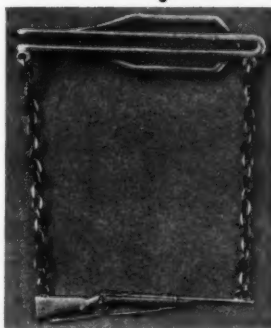
BETTER BULLETS IN HALF THE TIME by using the Grant Double Nozzle Pressure Dipper with your two-cavity mold. \$1.75 postpaid. Circular on request. Geo. F. Grant, 22 Sycamore Ave., Mill Valley, Calif. 12-38

PISTOL PRIMERS \$2.50 per thousand. Ask us about them. Pacific Gun Sight Co., 353 Hayes St., San Francisco, Calif. 12-38

.22 GAME BULLETS

Fine accuracy and extreme deadliness in Hornets, Bees, Lewis, Zippers, and 220 Swifts. R. B. SISK - - - - Iowa Park, Texas

Buy A Gift to Please Him



A 24 karat Gold Plated or rhodium finish tie clasp will be a most popular and practical gift.

Well made and beautifully finished with your choice of guns—22 or 30 caliber rifle—22 or 45 caliber automatic, also 38 cal. revolver.

Your Choice for \$1.00 Each

Each tie clasp in an Attractive Gift Box

GENE MITCHELL
V. H. BLACKINTON & CO.
P. O. Box 261, Ben Franklin Station
Washington, D. C.

SHARPER DEFINITION - GREATER PRECISION!



Price Each
\$12.00

MG52—For Win. 52 Standard and Heavy Barrel Target Rifles with flat top slotted receivers.

MG52MS—For Win. 52 Heavy Barrel Rifles with Marksman Stock with flat top slotted receivers.

MG52B—For Win. 52 Standard Rifles with screw holes on left of receiver.

MG52BH—For Win. 52 Heavy Barrel Rifles with screw holes on left of receiver.

Also made for Winchester 36, 37, 69, for Savage 19, 22, 23, 33, for Stevens 417, Ballard, Ranger Model 50, etc. \$12.00

With the New MARBLE-GOSS RECEIVER TANG SIGHT

No "fuzzy" bulls. No eye strain. Puts aperture where it belongs—close to the eye. Special 1 1/4" disc with recessed aperture diaphragm (.005 thick) gives sharpest definition. Precision micrometer adjustments and longer sight radius give perfect control of shots. You see better—you score higher with a Marble-Goss.

14 SCORE-BOOSTING FEATURES!

Aperture closest to eye. Longest sight radius. Sharpest definition. Reversible disc carriage. Adjustable extension tang. 1/4 minute micrometer adjustments with clockwise movement. No bolt interference. No metal corners to cut cheek. Adjustable zeros. Easily attached or dismounted. Takes all standard thread discs. The new Marble-Goss is truly the "sight that has everything". (A-140)

MARBLE ARMS & MFG. CO. 502 DELTA AVENUE, GLADSTONE, MICH., U.S.A.

It's the Sight that has Everything!

TENITE
FORE-END
CAP

BISHOP STOCKS

Machine shaped and inletted stocks with Monte Carlo and concave cheek piece; good width and length in fore-end; fore-end cap fitted of Tenite, a new substance better than Buffalo Horn. Made from carefully selected dense Ozark Hill growth, American walnut. For Springfield, Enfield (straightened guard tang), Krag, Mauser, and Winchester 52, 54 and 70. Price, \$5.00 f.o.b. Warsaw, Mo. Send postage for 4 lbs.

E. C. BISHOP & SON

Complete, free catalog, on request

Warsaw, Missouri



SPECIAL STOCKS

for all Woodman and Hi-Standard B & C pistols. Three models. Custom made to fit each individual hand. Dope Bag Approved. \$4.50. They satisfy or you don't own them. Write for information.

K. N. STRINE

Cardington

Ohio



"KIT 22" A PERFECT GIFT FOR A SHOOTER



GOOD LOOKING SCUFFPROOF IMPERVIOUS TO OIL AND WATER

Five compartments in tray—Blue velvet linings in scope and watch compartment. Washable inside and out. Black or Brown. Write for prices and Circular K.

Shooting Supplies—Time Payments

WISLER WESTERN TARGETS

543 Clay Street

San Francisco



For Christmas

A gift that any sportsman will treasure for a life-time—a Zeiss Rifle Scope or a Zeiss Featherweight Binocular! Supreme in optical quality and mechanical construction. Many models.

At leading dealers. Write for Literature.

Carl Zeiss, Inc., Dept. ZT-5-12, 485 Fifth Ave., New York 728 So. Hill St., Los Angeles

ZEISS



Everything Needed For Perfect Cleaning!

The Gunslick Master Cleaning Kit is complete—Special Gunslick Patches, Gunslick Nitro Solvent, Gunslick Lead Solvent, and Gunslick Graphitic Lubricant! All in a handy case—all for \$1.00 postpaid! What more useful present could any shooter want? Send \$1.00 today for this finest of all gifts for a shooter.

OUTERS LABORATORIES, Onalaska, Wis.

Gunslick

MASTER CLEANING KIT!
AT YOUR DEALER
OR SENT FOR ONLY

\$1.00
POST-PAID!



Ideal RELOADING TOOLS

For producing accurate reloads capable of close grouping, Ideal Tools are the accepted standard. They give all the advantages of the tong type of tool with the effectiveness of the straight line type.



No. 5 Powder Measure indispensable for smokeless powders. \$7.50.

358425



.38 Revolver

357446



.357 Magnum

Bullet moulds available for a large number of popular loads. Sample slugs not lubricated or sized, 4¢ each.



IDEAL No. 3 WITH DOUBLE ADJUSTABLE CHAMBER
No. 3 Tool for rimfire cases. No. 10 Tool for rimless cases. Handles more than one style of bullet. Each \$5.50.

NEW IDEAL HAND BOOK 33
Just off the press. Revised and edited. Latest information. 160 pages. 50¢ postpaid.

THE LYMAN GUN SIGHT CORP.
90 West St. Middlefield, Conn.

ONLY TILDEN MOUNTS



offer these desirable features. Much the lowest, strongest mount of its type. Very light. Readily dismounted. No loose parts. Re-zeroes accurately. Satisfaction guaranteed. Reasonable prices.

SIDE LEVER SAFETY

Ideal for mounted or unmounted 70's. As shown above in "ON" position. Word FIRE appears when released. \$2.50 postpaid. Easily installed. Write for catalog.

TILDEN MFG. CO., 2750 No. Speer Blvd., Denver, Colo.

A CHRISTMAS GIFT
that will be appreciated

Ed McGIVERN'S BOOK

**FAST AND FANCY
REVOLVER SHOOTING
AND POLICE TRAINING**

484 pages with 424 illustrations

Price \$5.00 Send orders direct to

Ed McGIVERN
Lewistown, Montana

For Model 52 Winchester Rifles
SMITH'S TRIGGERS
Guaranteed

Write for information
J. B. SMITH, 3219 Adeline St., Oakland, Calif.

GUNSMITHING & SUPPLIES

GUNSMITH FILES, Rasps, Gravers, Chisels, Gouges. Carving-tools, Spring and Toolsteels, Abrasives, Oilstones, etc., F. Mittermeier, 3577 E. Tremont, New York City. 12-38

HUBALEK Special Match Barrels fitted to your action and tested, \$30.00 to \$35.00. Fine alloy steel barrel blanks for gunsmiths, 22 L. R. and all other popular calibers, \$20.00. Latest Model Hubalek Machine Rest, \$25.00. Send for folder. A. Hubalek, 22-Caliber Specialist, 1167 Myrtle Ave., Brooklyn, N. Y. 12-38

SINGLE SHOT RIFLES Parker-rifled to .22 Caliber. Finest Accuracy. Stamp for prices. W. A. Griffing, 514 W. State St., Milwaukee, Wis. 1-39

RESTOCKING, Rebluing, Checkering, Percussion and Flint Arms restored. Bailey, Lisbon, N. H. 2-39

OREGON MYRTLE WOOD, the most beautiful stock wood. Stocks, Blanks, Wood. Stamp for illustrated folder. D. H. Mosher, Salem, Oregon. 1-39

CHECKERING TOOLS, hand made by Checkering expert. Set of three—Checker, border, cleaner; also directions, complete, \$2.75 postpaid. Warner's, 39R Geer Ave., Norwich, Conn. 12-38

WE ARE CHAMBERING for the 22/3000. Can also rechamber the Hornet for this new popular cartridge. Kimball Arms Co., 220 Cambridge Road, Woburn, Mass. 12-38

CHECKERING TOOLS: 2 line spacers in 16, 18, 20, 22 and 24 lines to the inch, each 80¢. Set of 5 spacers \$3.75. Frank Mittermeier, 3577 E. Tremont, New York City, N. Y. 12-38

RESTOCKING SUPPLIES. Rough turned machine inletted stocks. French and Circassian walnut blanks. Buttplates, grip caps, sling-swivels, etc. Chambering Reamers. Ask for folder. Paul Jaeger, 4655 Fernhill Rd., Philadelphia, Pa. 12-38

ARTISTIC ENGRAVINGS on fine guns; game scenes in relief; gold inlay; scroll work, etc. A. Griebel, 4724 N. Keystone Ave., Chicago, Illinois. 12-38

ZIPPER and .22 Magnum Single Shots converted to .22 Varminter. Hornet, .218 and .22-3000 Liners. New barrels for Hornet, .218, .22-3000, R-2, .220 Swift, .22 Varminter, .257 Roberts. .25 Remingtons re-chambered to .257. J. E. Gebby, 344 Knecht Drive, Dayton, Ohio. 12-38

STOCK BLANKS. American Walnut, Bird's-Eye Maple and French Walnut. John Reize, 8152 Cornell Ave., Chicago, Ill. 12-38

YELLOWSTONE will remodel your Enfield to custom sporter or target rifle, charges reasonable. Folder free. Yellowstone Gun Co., Columbus, Mont. 12-38

.30 CALIBER Rifling Heads with Oiltube, complete, only \$7.50 each. F. Mittermeier, 3577 Tremont Ave., New York City. 12-38

MATCH GRADE Carbon Steel Barrel Blanks 1/4" x 31" 22 Long Rifle, \$10.00; Ordnance Steel \$15.00. 1/4" x 25" Ordnance Steel Barrel Blanks, \$10.00; 29" Long \$12.50; 31", \$15.00; 1/4" x 25" \$12.50; 29" Long \$15.00; 31" \$17.50. Enfield Barrel Forgings, drilled and rifled, 27" Long \$10.00. Above blanks in all popular calibers. Turn and straighten above blanks \$5.00. W. A. Sukalle, Barreilmaker, Phoenix, Arizona. 1-39

BEAUTIFUL and PRACTICAL "Oak Leaf" carving. Outlasts checkering. Can be had at checkering prices. \$5.00 and up. N. Hultgren, 706 4th Ave., Juniata, Pa. 12-38

CUSTOM RESTOCKING, Special Tools, model making, general gunsmithing. Only high work. J. D. Buchanan, 1280 Sunset, Los Angeles, Calif. 12-38

BLUE-KIT, makes four of Howe's and Baker's Hot Bluing solutions, \$2.00. Send for list of Gunmaker's Chemicals. McDonnell-Goodwin, New Hope, Pa. 12-38

AMERICAN Walnut Crotch Burl, Rifle and gun stock blanks. Grain running right in grip. Plenty of Circassian Walnut, too, up to 3 inches thick. Cheapest prices in U. S. A. Buy from wholesaler who has saw mill supervision, insuring the prettiest of Burl and grain. Inletting and shaping service to gunsmith, where you can save half your cost on any gun or rifle. D. W. Thomas, P. O. Box 184, Vineland, N. J. 12-38

54 and 70; also Single-Shot Hornets rechambered to .22-3000 or R-2. J. E. Gebby, 344 Knecht Drive, Dayton, Ohio.

CUSTOM BUILT Hunting and Target Rifles. Rebarreling for any commercial cartridge, also 22-3000, 218 Bee, 276 Dubiel, 280 Dubiel. Expert repairing of Domestic and Foreign arms. Jaeger Single Set Trigger for bolt actions. Hensoldt Scopes, Jaeger Quick Detachable Mounts. Ask for estimate. Paul Jaeger, 4655 Fernhill Rd., Philadelphia, Pa. 12-38

RE-BARRELING, Re-Stocking, Re-Lining. Myrtlewood rifle and pistol stocks a specialty. Stainless steel re-liners for Muzzle loaders and moderns. Any practical conversion made. Repairing, rebluing. Guns taken as payment for work. Lowest prices. Satisfaction guaranteed. P. O. Ackley, Roseburg, Ore. 12-38

AMERICAN Walnut Sporter Blanks. \$1.50 to \$4.00. Stamp for circular. L. K. Shaffer, Delphos, Ohio. 12-38

MILHOAN-BUILT STOCKS fit rifle and shooter. "Your inletting as perfect as I ever saw. The Rifle absolutely maintains its zero, something I've never experienced before in a one piece stock," says T. K. Lee of a stock I built for him. Robert U. Milhoan, Elizabeth, W. Va. 12-38

SOLID Bronze Bullets for finest accuracy. \$3.50 per hundred. Match and Sporting Barrels fitted for 22-3000 2R, 220 Swift, 220 Krag, Varminter, Roberts, .250 Magnum, .30-06, .300 Magnum, .35 Whelen. Strictly precision fitting and chambering. Barrels of all makes available. Stoeger & custom stocks. Write for prices. J. R. Adriance, Owego, N. Y. 12-38

FIRST QUALITY Target Grade Rifles, custom made, 22-3000, 22 Zipper, 220 Swift, any weight to 1 1/4 x 30 or less, with dies. 3 inch groups 200 yds. either caliber. No hornet barrels rechambered. Winchester Hi-Side Singles or any Mauser stocked and rebarreled. \$75.00 to \$150.00. Hervey Lovell, 3345 N. Gale St., Indianapolis, Ind. 12-38

BINOCULARS, SCOPES, SIGHTS & CAMERAS

BINOCULARS CLEANED and REPAIRED. Alignment correct to 1/1000 radian on our special collimator. Mail your glass for estimate. Mirakel Optical Co., Mount Vernon, N. Y. 12-38

READY. Send for our new illustrated catalog showing arms, scopes, and binoculars. Stamp, please. Kimball Arms Company, 220 Cambridge Road, Woburn, Mass. 12-38

SCOPE USERS ATTENTION! Cross-hairs, Special Reticules and General Repairing. A. M. Reynolds, 434 Anthony St., Schenectady, N. Y. 12-38

RIFLE TELESCOPES for hunting and target; high in quality, low in price. Send for catalog. Malcolm Rifle Telescope Co., Auburn, N. Y. 12-38

TELESCOPES. Microscopes. Binoculars. 1939 bargain catalog free. Brownscope Company, 5 West 27th Street, New York. 1-39

DOT RETICULE users possess distinct advantage. Easiest, most accurate aiming method known. Improved scores or money back. Fecker \$4.50, Pechar \$4.50, Unertl \$4.00, Lyman \$3.50 complete. On your reticule \$2.00. T. K. Lee, Birmingham, Alabama. 12-38

PISTOL SHOOTERS! Try a Roberts "MICRO" Front Sight Adjusting Gauge, \$2.50. Premier Products, 449 Gladstone, South Bend, Indiana. 12-38

SCOPE SIGHTS, Binoculars repaired. Cross-hairs, cleaning, etc. Broken lenses replaced. Estimates given promptly. Harley B. Watts, 88 North Kays Ave., Columbus, Ohio. 1-39

WOLLENSAK 4 power riflescope with quarter minute micrometer mounts, post, post and crosshair or crosshair reticule, \$10.00 postpaid or C.O.D. Will trade for guns. O'Connor's Store, Baker, Oregon. 12-38

B&L DRAW TUBE Spotting Scope, 20X. Perfect. \$22.50. Hudson, R-52 Warren Street, New York. 12-38

ACCESSORIES

FACTORY SECONDS Recoil Pads \$1.00, postpaid. Complete with screws for attaching. You save \$2.25. Send outline of gun butt. Prompt delivery and satisfaction guaranteed. Incor Mfg. Co., Terminal Bldg., Youngstown, Ohio. 12-38

TARGETS, STANDARD AMERICAN. Made on tagboard. Send for price list and sample. Westchester Trading Post, Mount Vernon, N. Y. 12-38



GUNS

\$5 brings this \$42.50 Winchester Pump Gun.

\$8 down brings this \$66 Savage Model 23D Hornet and Fecker Small Game Scope with standard mounts.

10% DOWN-10% MONTHLY

Shotguns, Rifles, Pistols, Scopes, Binoculars, Cameras, Outdoor Equipment.

Now you can own the equipment you've set your heart on! A small down payment brings it to you at once. Easy monthly terms. You deal directly with us. No finance company. Enjoy experienced, capable advice on your shooting requirements by America's leading authorities.

Send 25c today for the valuable Gun Handbook and Catalog illustrated on the right.

GUN HANDBOOK AND CATALOG

Illustrates, prices and describes popular makes and models. 8 1/2 x 11". 140 pages, 425 illustrations.

SEND 25c



NATIONAL TARGET & SUPPLY CO. Dept. R-12 1255 25th St., N.W., Wash., D.C.

MICROMETER CLICK



48J



U.S. PAT. 1,501,359 CAN. PAT. 230,217

Better Made, Better Value LYMAN SIGHTS

For satisfactory results, invest in Lyman precision-made sights. Their better value will stand out in your shooting performance. Strongly made, easy to operate and will hold their adjustments. For all target rifles. At left, micrometer click target sight No. 48 with 1/4 min. clicks. Designed for Win. 52, Sav. 19. \$13.00.

No. 17A Target Front Sight with 9 interchangeable inserts, \$2.50.

No. 77 Target Front Sight, quick detachable. 9 inserts, \$4.00.

Send 10c for latest Catalog.

Free fold. r available

THE LYMAN GUN SIGHT CORP., 90 West St., Middlefield, Conn.

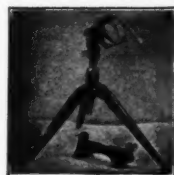


STREAMLINED MOUNTS

- So low that the scope tube barely misses the receiver!
- 7 inches between bases gives maximum strength!
- Streamlined shield over front end!
- The most accurate and dependable windage adjustment!
- Write for illustrated literature!

M. L. STITH MILAM BLDG. SAN ANTONIO, TEXAS

CHRISTMAS GREETINGS



By a shooter for the shooter. Gifts that will be really appreciated. (Gift wrapped.) The finest Scope Stand the world affords. The Luxe Offset Stand (detachable head with scope attached) micrometer adjustments for elevation. Choice of the champions, \$6.50. Special stand for B&L 65mm. scope, \$7.50. The Freeland Pistol Stand, finest available, \$16.00. B&L Scopes and stand combinations. De Luxe Arm Cuff with quick detachable Clasp, \$2.50. Freeland Fore End Stops, \$2.85. Freeland Champion Grade Stocks, \$35.00. Catalog covering Complete Line of Accessories ready about the 10th.

Get him or her the Freeland Accessory this Xmas.

AL FREELAND

1112 35th St. Rock Island, Ill.

EXCELLENT CHRISTMAS GIFT:

PECHAR TWO POWERS in one Targetspot Scope without changing Eyepieces. Also New Improved Mounts. Free Folder.

RUDOLPH PECHAR

113 Bechmont Ave., West View, Bellevue Br. Pittsburgh, Pa.

Christmas Presents FOR SHOOTERS

Randle Shooting Mitt, 3 sizes.....	\$1.50
Randle Scope Stand, 15 oz.....	5.75
Randle Ammunition Block, .22.....	.50
B. & L. Draw Tube Scope, 20X.....	27.00
B. & L. N. R. A. Prismatic, 19.5X.....	49.50
B. & L. 65 m/m Scope, 20X.....	70.20
Targetspot Rifle Scope, 8 or 10X.....	54.00
Super Targetspot Scope, 8, 10 or 12X.....	67.50
Kings Rifleite Shooting Glasses.....	10.00
Ta-Pat-Co Shooting Mat No. 40.....	3.25
Ta-Pat-Co Shooting Mat No. 41.....	5.95
Wialer Score Book.....	1.00
N. R. A. Score Book.....	.50
Hoppe's Gun Cleaning Pack.....	1.00
Parker Celluloid Covered Rod, .22.....	2.00
Same Rod .30 cal., jag tip.....	2.25
Randle Non-slip Metal Sling Keeper.....	.75
Sling Tension Equalizer.....	1.50
Wilder Sling Pad.....	.75
Carbine Lamp.....	1.00
Issue Type Patches, .22 or .30, 1000.....	1.00
10-X Aristocrat Shooting Coat.....	6.50
10-X Imperial Shooting Coat.....	9.00
Sheepskin Carrying Case for 52 or 37.....	5.25
Jostam Cheek Pad for Scope use.....	3.00
Remington Model 37 Match Rifle.....	69.95

All above items sent prepaid

Official N.R.A. Targets

Write for free catalogue.

THURMAN RANDLE & CO.

208 N. Akard St.
Dallas, Texas

Official N.R.A. TARGETS
LITHOGRAPHED

Everything you want and need in a target is provided in Official N.R.A. Targets. That's why they are the official "must" of the National Rifle Association.

Yet they cost no more than printed targets. You can't afford to practice on any but perfect targets. You owe it to your shooting to practice only on Official N.R.A. Targets.

Write for complete price list.

NON-GLARE BULLSEYES
•
CRISP WHITE RINGS
•
POSITIVE UNIFORMITY
•
SHARP CLEAN BULLET HOLES

FOR HIGHER SCORES

IF YOUR TARGET ISN'T OFFICIAL YOUR SCORE DOESN'T COUNT

NATIONAL TARGET & SUPPLY CO. Dept. R-88 1255 25th St., N.W., Wash., D.C.

More for your Money Here

To acquaint readers of American Rifleman with the new Hunter-Trapper-Trapper Outdoorsman, we are making this most attractive offer. Send us only \$1.00 for a special trial 12-months' subscription. You'll like this old favorite magazine in its new dress and really it is a vastly improved publication. You won't get better outdoor reading at any price. Regular firearm, skeet and trap shooting as well as other appropriate outdoor departments.

Waterproof Match Box FREE

As an added attraction to those of you who send in promptly we will send you this handy waterproof match box. Every outdoorsman should have one as dry matches may at some time save a life. This match box can be yours free by simply taking advantage of this money saving offer at once.

MAIL COUPON NOW

H-T-T Outdoorsman, Dept. 118, Columbus, Ohio, U. S. A.

Here is my dollar. Sure I want those twelve big copies and that handy waterproof match box.

Name.....

Address.....

IDEAL CHRISTMAS GIFTS

New Hartmann Combination Gun Case

Will accommodate rifle with telescope sights attached and extras. Black covering, brass hardware. Specify rifle.

Price, F. O. B. Washington, **\$12**

Hartmann 2-Gun Pistol Case

Room for accessories. Lined with soft, maroon felt. Imitation leather cover; nickelplate hardware. 13"x15"x3". Specify handguns. **\$8**

Price, F. O. B. Factory.

NATIONAL TARGET & SUPPLY CO.
Dept. R-100 1255 25th St., N.W., Washington, D. C.

FECKER TARGET SCOPES

are the only Target Scopes in which the shooter can start with the moderate priced $\frac{3}{4}$ " Objective Scope, and later have it increased to the $1\frac{1}{8}$ " or $1\frac{1}{2}$ ", as his shooting experience grows. The cost of increasing the power and light gathering is the difference in cost between the various models.

The $\frac{3}{4}$ " Scope with plain Non-Click Mounts, complete, is \$37.50. With $\frac{1}{4}$ or $\frac{1}{2}$ minute Click Mounts, complete, is \$45.00.

J. W. FECKER
2016 PERRYVILLE AVENUE
PITTSBURGH, PA.

Telescope Sights Spotting Scopes and Team Scopes

48 HOURS TRADING EXCHANGE

Write to-day—what you have and what you want. We answer AIR MAIL Stating LIBERAL ALLOWANCE. Our Shipments Prepaid.

"PAY WHILE YOU PLAY"

Why think about your next Gun—Own it and use it NOW—8 months to pay—immediate Delivery.

LAST CALL! Winchester 52. Model 1936, Target Rifles, Reg. \$49.95. **\$37.95**

Send Stamps for 40 Page Illustrated Catalog

SLOAN'S SPORTING GOODS CO.
88-A Chambers St., N.Y.C.

GENUINE pearl, ivory and stag revolver grips, plain and carved. Frank Mittermeier, 3577 E. Tremont, New York City, N. Y. 12-38

GRIP-ADAPTOR, The "Slip-On" grip adaptor for revolvers. These adaptors again available for \$1.00 each. Complete description upon request. Ordnance Service Co., Box 36, Station F, New York, N. Y. tf

IT MUST BE GOOD. Twenty-one shooters in one group discarded other mits in favor of the new PROTEKTOR MODEL. \$1.50 postpaid. Basil Tuller, Galetton, Penna. 12-38

CASWELL Target Carriers give the shooter every possible point because they hold the target steady and require no exertion to operate. Fully equipped with speedy ball-bearing pulley wheels and target holders for every type of indoor paper rifle or pistol targets. Caswell Target Carriers, Anoka, Minnesota. 12-38

OFFICIAL Trigger Test Weights for rifle or pistol. Lead attached to curved rod tests exactly three pounds. Appropriate for club or individual use. Approved by N.R.A. Price \$1.25, postpaid. National Target and Supply Co., 1255 25th Street, N. W., Washington, D. C. tf

OUTSIDE SCORING GAUGE definitely settles score with 10-ring missing and second shot doubtful; also gauges doubtful nines easy, for 50-ft. targets. 55¢ delivered. Regular plug gauge 25¢. Louis Mattea, Fullerton, Nebr. 12-38

"SURE GRIP" Adapters (seconds) 75¢ postpaid until gone. Fray-Mershon, Inc., 515 West Windsor Road, Glendale, California. 12-38

STEPHENSON MITTS, \$1.25. "Best on Market," shooters say. Reduces barrel whip, heart beat. Mailed anywhere. Outlook Target & Supply Co., Gresham, Oregon. Mention Adv. tf

MUZZLE crowning brass balls (steel shank) diameters 7/16", 9/16", 1 1/16" each 75¢. Set of 3 sizes, \$2.00. Frank Mittermeier, 3577 E. Tremont, New York City, N. Y. 12-38

POSTPAID—Used army holsters .38 revolver 75¢, Springfield rifle front sight covers 35¢, Hollifield dotters for .45 automatic pistol 65¢ set. Canvas leggings, size 14 to 18, 50¢ pair. Barrack cleaning rods 35¢. Waterproof gun breech covers 35¢. Oil treated leather rifle slings 35¢ each for \$2.25 dozen plus postage. Free camping supply catalog. Kife Sales Co., 523 Broadway, N. Y. C. 12-38

HICKORY Cleaning rods for rifles, in calibers from 22 to 45. By mail postpaid. Up to 28", 50¢; from 28 to 40", 75¢; over 40", one dollar. Lorin Granger, Weyerhaeuser, Wisc. 12-38

FANCY molded pistol grip caps. Blanks for fore tips. Slabs for lengthening stock. Recoil pads. Free catalogue. Shooters Specialty Co., Box 782, Butler, Pa. 12-38

YOUR SCOPE-MOUNTING PROBLEM. Consider Monomounts-Twinmounts. Get illustrated circular. Albree, 110 Milk Street, Boston. 12-38

LESS PROFANITY Products: Lever locking keepers German Silver \$1.00, polished Bronze 60¢, plain 40¢. Pencil Tip Scoring Gauges .22 flexible 40¢, plain 25¢, combination 22-38 40¢. W. A. Study, R.R. #3, Box 348, Richmond, Indiana. 12-38

PATENTS

PATENTS—Low cost. Easy terms. Book and information free. Highest references. L. F. Randolph, Dept. 370, 724 9th St., Washington, D. C. tf

CHESTER TIETIG, registered patent attorney, formerly chief inspector U. S. Army Ordnance Dept., 309 Mercantile Library Bldg., Cincinnati, Ohio. 12-38

PHOTO SERVICES

FILMS developed, 25 cents. Free enlargement any 6 or 8 exposure roll. Quickest mail service possible. Cloquet Photo Finishers, Cloquet, Minnesota. tf

ANTIQUES & CURIOS

5 PERFECT FLINT ARROWHEADS, 20¢; 4 perfect Flint birdpoints, 20¢. 30 different named minerals, \$1.00. Curios and pistols. Catalog 5¢. Lemley Curio Store, Northbranch, Kans. tf

ANTIQUE ARMS bought, sold, exchanged. Colt or other ivory gripped models, cased outfits, big heavy Colt percussion revolvers and American percussion or flintlock horse pistols particularly desired. Stephen Van Rensselaer, Established 1902, Williamsburg, Va. 12-39

LARGE STOCK of fine antique, American and European arms. Write us your wants. Send us 10¢ stamps or coin for 3rd edition catalog. We purchase antique arms. Kimball Arms Co., 20 Cambridge Road, Woburn, Mass. tf

ANTIQUE FIREARMS. Large stock. Send 15¢ for next three large lists. C. Weisz, 2412 Northland Ave., Overland, Missouri. tf

ANTIQUE FIREARMS. New list ready for mailing. Price 9¢. William M. Locke, 3607 Ault Park Road, Cincinnati, Ohio. 12-38

ANTIQUE FIREARMS OF HIGH CLASS. No junk handled. Lists accompanied by actual photos of arms offered, mailed for 50¢ in coin or stamps. Each lists a liberal education in Antique Arms. F. Theodore Dexter, Box 399, Topeka, Kansas. 5-39

MISCELLANEOUS

CANADA, THE RIFLEMAN'S PARADISE. Its true picture is given you in the pages of **ROD AND GUN IN CANADA.** Canada's national outdoor-life magazine. Each issue is packed with honest-to-goodness yarns of hunting and fishing in the Dominion, which has it second to none. Real stories that men can appreciate. Fine Gun Department edited by C. S. Landis. **PRICE \$1.00 per year.** Send 10¢ for Sample Copy. Rod and Gun, 1224 St. Catherine St., W. Montreal, Canada. tf

RECEIVED TOO LATE TO CLASSIFY

MOSSBERG Spotting Scopes, brand new. \$13.35. Stands, \$3.35. American Distributing Co., Box 456, Schenectady, N. Y. 12-38

POWDER, PRIMERS, BULLETS and CASES for all popular calibers. Sisk Bullets, Scales, Powder Measures, Books, etc. Leslie Lindahl, Central City, Nebraska. 12-38

PACHMAYR Type Grip Adapters for Colt and S. & W. Revolvers, \$1.00. Rifleman's Exchange, 3511 So. Figueroa St., Los Angeles, Calif. 12-38

EXCELLENT Savage 99 .30-30 Carbine; Take-down, Straight grip, \$32.00. Savage Model 99 .303, solid frame, straight grip; excellent except for scratches in stock varnish, \$30.00. 32 Remington 14, Lyman sights, excellent except varnish worn at grip and comb, 45 cartridges, \$35.00. Winchester '07 .351 Auto in trunk case; excellent except spot on top of receiver, \$45.00. Highly engraved .500 Farquharson by Gibbs; action and stock excellent, double extractors, barrel very good out, \$55.00. Money cheerfully refunded if not satisfied. Catalogues ten cents. T. B. Gresham, University, Virginia. 12-38

SAVAGE Hornet, excellent, \$25.00. Colt 44 C&B, good, \$10.00. Underhammer rifle, \$8.00. Collection long guns, \$40.00. Six old pistols, \$12.00. List 40 others. Gerald Crozier, McGraw, N. Y. 12-38

COLT ARMY 38 Special, \$15.00. Colt 32 Auto, \$10.00. Both good. M. O. John Schwope, 2618 West 51st Terr., Kansas City, Kansas. 12-38

45 COLT D.A. Revolver, \$15.00. Mossberg Scope, Stand and case, used twice, \$20.00. Harry E. Smith, 205 Front Street, Northumberland, Pa. 12-38

BEST NEW GUN PRICES ON APPLICATION: Trades accepted. Following Used Bargains: Winchester 92, 25-20 Carbine, mechanically perfect, finish worn, \$17.50. Winchester 52 Speedlock, standard, old model, excellent, \$27.50. Savage 99T, 250-3000, solid frame, Lyman tang sight, Weaver 29S scope, excellent, \$39.50. Colt Shooting Master, excellent, \$34.50. S. & W. Outdoorsman 38-44 late model, hump-back hammer, Magna grips, perfect, \$32.50. B. & L. 20X Draw Tube Scope, perfect, like new, \$23.00. John J. Tobler, 507 32nd Street, Union City, N. J. 12-38

ANTIQUE FIREARMS. 1500 specimens. 50 page Special List 20¢. Printed catalog obsolete cartridges 15¢. Far West Hobby Shop, 406 Clement, San Francisco, California. 4-39

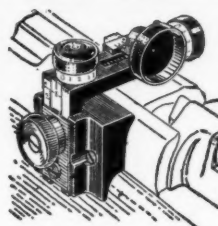
COLT BISLEY—Frontiers, Revolvers, Pistols, Rifles and Shotguns. New Service Target 7 1/4", 44 Special, new Shooting Master, Parker Double Trap, 34", single triggers, beaver-tail fore-end, Bisley 32-20 7 1/4". List. T. C. Hansen, Caney, Kansas. 12-38

WANTED—30-06 M1 Ammunition not older than 1934. State quantity and best cash price. Paul Wright, Silver City, New Mexico. 12-38

NEW Leather Slings. 75¢ postpaid, \$5.50 dozen. Springfield actions, N.S. bolts star barrels with hooded matted ramp mounted, \$28.00. Fancy inletted stocks French walnut, \$7.00. Mauser, 98-88, Springfield, Krag parts. Bean boots. Woolrich Hunting Clothing. Catalog dime. Flaig Bros., 817 E. Ohio St., Pittsburgh, Pa. 12-38

NEW Stevens 416 Target Rifle, new Fecker 3/4, 8 power scope, tension equalizer, \$52.00. Jay Wright, Newark, N. Y. 12-38

REDFIELD Precision Made GUN SIGHTS



Redfield Micrometer Receiver Sight—furnished with or without quick removable staff. True quarter-minute adjustments. The most accurate, durable micrometer sights you can buy. \$8.00 and up.



Redfield front sights—a choice of four bead styles in dovetail base and blade types for most rifles and carbines. \$1.00 and up.



Redfield adjustable sporting rear sights. Flat top, semi-buckhorn and full buckhorn styles for most rifles and carbines. \$1.75 and up.



Redfield Series 102 Receiver Sight. The perfect hunting sight. The most accurate and durable all-around sight ever made. Simple and rugged. Ideal for scabbard use. \$3.75 and up.

Catalogs Free on Request . . . Sold by Leading Dealers Everywhere

REDFIELD GUN SIGHT CORP., 3315 Gilpin St., Denver, Colo.

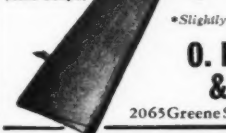
Want this Rifle for Xmas?

PIN THIS AD TO YOUR WIFE'S GIFT LIST...she'll know what you mean

THIS 46-B is a "Peach!" You'll be amazed to find so many new and exclusive features, which increase the fun of shooting, included in any rifle at so moderate a price. But that's the Mossberg way of doing things—finest quality, de-luxe equipment at down-to-earth prices.

.22 Cal. Tubular Repeater Model 46-B

\$13.85*
(Less Scope)



O. F. MOSSBERG & SONS, INC.

2065 Greene St., New Haven, Conn.

4-Power Internal Adjustment Scope Sight S-M-4 \$5.45*

Have you thought about giving a Mossberg Rifle or Scope for Xmas? You can make someone awfully happy! See the Mossberg line at your local dealers! And be sure to send for our free catalogue. It's well worth reading.

*Slightly higher west of the Rockies

FREE! GUN CATALOG



Bargains in Guns, Scopes, Rifles, Reloading Tools, Sedgley Pistols, H&R Sportsman. We trade.
Ithaca 1930 Model 12 Ga. double (New)....\$29.50
Marlin Over-Under 12 Ga. no pad (new)....29.50
Savage Model 230 22 Hornet (New)....29.50
Savage Model 19M 22 Heavy bbl. (New)....36.95
Winchester Model 61 210 Zipper (New)....38.50
U. S. Army Scabbards (New)....4.95
A-1 Gun's Slings \$3.50, New \$3.95, Swivels...35
Weaver 230 Scope \$24.75, Type "B" Mounts 27.90
Combination Axe-Knife, Special.....3.25
Bargain Camera List Free! Gun Clubs send 10¢ for Medal-Award Catalog—50% Discount. Fisher-Barnes Bargain Fishing Tackle Catalog Free! Skiers! Free Ski Catalog.
J. Marshall & Sons, First & Madison-B, Seattle, Wash.

CHRISTMAS SUGGESTIONS

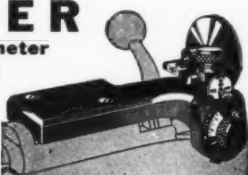
Send for our Holiday list. Special prices from December 1st to 25th.

WESTCHESTER TRADING POST
Mount Vernon, N. Y.

VAVER

Dial Micrometer SIGHTS for WINCHESTER

52
and all other Target or Sporting Rifles



for Dovetail MOUNTING
No. W52 Lt for W52 with Marksman Stock—Standard Height
No. 35—MIET All—W52 Telescope Height
for ROUND RECEIVER-MOUNT
5336—for W52—Marksman Stock
5237—All W52—Telescope Height

1/8 INCH CLICKS...no back lash

VAVER provides sights exactly suited to your rifle and shooting style. 1/8 minute clicks (8 to the inch at 100 yards). Absolutely accurate—elevation and windage are actuated by Frusto Conical Cams that cannot back lash. These Sights are also made for 37 Remington, Sea's Ranger, Savage NRA and Stevens, and in standard receiver sights for Winchester—all models; Springfield 30-06, M1 and M2; Savage 40-45; Remington Special and Express, and all other target, sport and military rifles.

VAVER FRONT SIGHTS
5 Types . . . Permit any sighting combination—any receiver sight, any height.



W-11AT Telescope Block Mounting. Telescope height quick detachable front sight for scope block mounting. Dovetail body, mounting block and screw are hardened—therefore permanently accurate. Complete with blocks for dovetail or screw mounting.
W-11AT . . . \$6.00
W-11 Correct Height for W-52 with Marksman Stock (See W-52 Lt and 5236, above) . . . \$5.00
35 FS STANDARD HEIGHT, all receivers, mounts in front sight dovetail . . . \$3.50
36 FBS For Springfield . . . \$3.50
35 EBB Barrel Block raises front sight to telescope height . . . \$4.50

NOTE—ALL VAVER Front Sights come complete with 8 quick change apertures and Green and Amber Light Filters.

NEW VAVER Series '38 Sporting and Light Rifle Sights



Meet demand for Dial Micrometer Sights for the lower priced target and sporting rifles. Embody same mechanical principle as VAVER Precision Target Sights with special features for field use. 1/8 minute clicks, both elevation and windage. Elevation Dial graduated in minutes and yards with provision for zeroing each ammunition. Smooth rugged construction, quick removable staff. For Winchester 61, 62, 63, 69 and 72; Savage 23AA; Remington 341A and 321A; and Marlin 39. For Flat Receiver Rifles . . . \$6.50 For Round Receiver Rifles . . . 7.50
CATALOG FREE!

VAVER SIGHT CO.
Successor to Sight Department of WITTEK MFG. CO.
4311 W. 24th PL. CHICAGO, U.S.A.

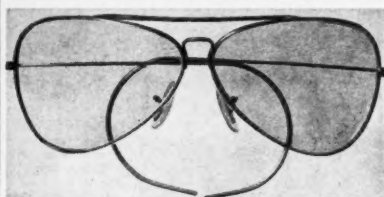
TRI-PAK GUN KIT, Inc.
50 Brady St. San Francisco, Cal.

Use the rod that turns with the rifling when you push it through the bore of your gun . . . patch reaches EVERY part of the lands and grooves and cleans PERFECTLY. Strong light duralumin. Rigid dowel-and-shoulder type joints. Detachable slotted and plug tips. Takes standard brushes and cleaners . . . Palm-fitting bakelite handle—ball bearing swivel. The most serviceable and easy-to-use rod you can buy. Sizes for all rifles and pistols, \$1.25. 1-pc. rods—rifle, \$1; pistol, 75c. Special shotgun rods, \$1.25. Ask your dealer—or write for folder.

A 21 - Line Display "Ad"

You can put this space to work for you regularly, at a very reasonable cost—only \$17.85 per month for 12 consecutive insertions. Rates are slightly higher on an every-other-month schedule, or for single insertions. The circulation of THE AMERICAN RIFLEMAN is now over 60,000 copies monthly—and increasing steadily. We are producing splendid results for dozens of advertisers who use this size space right along. Send us "copy" instructions now, for the next issue.

The New Perspiration Bar BELZ SHOOTING GLAS



Equipped with genuine SHARPSITE or BRITESITE ground and polished Lenses. Will not steam or get milled. Protects your eyes . . . improves your shooting.

NOW \$3.75 and up

Prescriptions from \$10.75 complete and up. For Shooting, Fishing, Driving and all Outdoor Wear. 30-day trial with plano glasses. Write for new price list and booklet to-day.

W. N. BELZ, Inc., Opticians, 2 E. 44th St., N. Y. C.

EXPERT Gunsmithing

Fine equipment and expert staff enable us to offer precision work on modern and antique arms. We make springs and missing parts. Expert welding. Low number Springfield actions drawn and reheat-treated using government formula. \$7.50. We install the Engel single trigger. Will not double nor balk. \$25.00. Close chambering for 300 Mag., 30-06, .275 Win. Roberts and 22-3000. Fine stock work. Estimates promptly given. Moderate prices. Prompt delivery. Send all work express prepaid. Kimball Arms Co., 221 Cambridge Rd., Woburn, Mass.

WINCHESTER Model 52, heavy barrel, Marksman stock, 77A front, Marble-Gross, extension rear, brand new, \$58.40. American Distributing Co., Box 456, Schenectady, N. Y. 12-38

MALCOLM No. 1 scope, 6X, 18" tube, type "C" micrometer mounts, fine crosshair, perfect, \$18.00. Remington 11A, 16 gauge, 30" full, excellent, \$30.00. Pacific dies and shell holder 44 S. & W. Special, new condition, \$6.00. WANT—Stevens 44½ SS rifles, Winchester SS Hi-Side, Winchester 34 and 70 Hornets any condition. Leslie Lindahl, Central City, Nebraska. 12-38

SCOPE SQUARES
for accurate scope adjustments. Flat, truly square surfaces guarantee perfect settings for both windage and elevation, held firmly in place at all times. Can be used with either Focker or Lyman mounts on ¼" diameter tubes, without taking scope apart. \$3.00 delivered.

WILLIAM HEYER
52 Benita Ave., Youngstown, O.

U. S. Army Prismatic Rifle Sight and Observer's Scope
"Warner & Swasey" Complete with Rifle Mounting. Leather Case. Army Krag Rifles, 30/10; U. S. Army, Oil Preserved, Leather Gun Slings, New, \$7.50 each, \$7.50 per doz.; Used, \$3.50 each, \$3.00 per doz. Rifle parts, Camp Equipment, Army & Navy Surplus Goods. Send 10¢ for NEW, complete, 1938, big catalog. Refunded on purchase of \$1.00.

Globe Sales & Mfg. Co., R-624, Broadway, New York

GUNS—All makes and calibers. Used and new. Also some antiques. Send 10 cents for list. Rifleman's Exchange, 3511 So. Figueroa St., Los Angeles, Calif. 12-38

ORIGINAL Bisley flat-top target .45, very good in and out, \$45.00. Same in .455, \$45.00. Colt New Service, .45, excellent in, very good out, \$16.00. S. & W. .45 Military, excellent in and out, \$22.00. Same but V.G. out, \$19.00. Same but good out, \$17.00. Money cheerfully refunded if not satisfied. Catalogues ten cents. T. B. Gresham, University, Virginia. 12-38

VENTILATED RIBS for all shotguns, \$17.50 to \$35.00. Satisfaction guaranteed. John Crowe, Guncraft, St. Joseph, Mo. 12-38

TWO K-22 Smith & Wesson Pistols, with Pachmayrs. Excellent. \$25.00 each. R. E. Ballard, Oroville, Wash. 12-38

SHOPWORN Model 52 Winchester, standard barrel, Marksman stock, 17A front, Vaver rear, regular price \$69.30, our price \$55.00. American Distributing Co., Box 456, Schenectady, N. Y. 12-38

WHAT IS ASSOCIATE MEMBERSHIP?



Associate membership in the N. R. A. costs but \$2.00 a year and is open to the relatives of Life and Annual Members living under the same roof. Here is an opportunity for every N. R. A. member to further help support the good work of his Association by enrolling as an Associate member some member of his immediate family.

APPLICATION FOR ASSOCIATE MEMBERSHIP

NATIONAL RIFLE ASSOCIATION

Barr Building
Washington, D. C.

GENTLEMEN:

I believe in the aims and purposes of the N. R. A. and desire to further help support the good work by enrolling the following named member of my family as an active * Associate Member.

Attached is remittance of \$2.00 for which please send appropriate membership credentials together with a copy of the latest price list to my _____ at the address below: (Relationship)

☐ Check here and attach \$3 if Annual Membership is desired.

The Associate Member { NAME _____
STREET _____
CITY _____ STATE _____

Endorsed as a U. S. citizen over 18 and application forwarded by:

NAME _____ STATE _____
CITY _____ STATE _____

* ASSOCIATE MEMBERS enjoy all the benefits of Annual Membership except that they do not receive THE AMERICAN RIFLEMAN MAGAZINE.

For Your Friends— THREE GIFTS IN ONE

FOR your sportsman friends who enjoy hunting as well as target shooting, we suggest this 3 in 1 gift which includes a year's subscription to Field and Stream in addition to annual N. R. A. membership and a twelve month subscription to The American Rifleman. As a special pre-Christmas bargain we offer all three for only \$3.50 (Foreign \$4.50).

You are familiar with the benefits of N. R. A. membership and you know from experience how welcome is your monthly visitor—The American Rifleman. Field and Stream is one of the better known outdoor magazines of special interest to gun lovers because of its Arms and Ammunition Department, conducted by Bob Nichols, well known firearms writer and editor.

Use the coupon below please. If you wish to place more than one subscription under this plan, clip the coupon and pin it to a sheet containing the additional names and addresses. All gift memberships received prior to December 23, will be entered and membership credentials mailed to recipients before Christmas.

Once again we ask you to remember the N. R. A. when remembering your friends. Say Merry Christmas with an N. R. A. Membership.



★ TO EACH FRIEND ★

To each friend you remember under this 3 in 1 gift plan, we send an appropriate greeting card bearing your name and timed to arrive in the Christmas mail. Or if you wish to use this offer as a remembrance to yourself you may do so. It is open to present subscribers of both magazines as well as to new subscribers and is made for the month of December only.

We Also Suggest—

This popular lifetime binder with its rich maroon color fabricoid cover and gilt stamp, holds twelve copies of The Rifleman and is unconditionally guaranteed to please. A useful gift for any Rifleman reader. Popularly priced at \$1.95 postpaid. Use the coupon below to order it.



National Rifle Association
Barr Building
Washington, D. C.

Gentlemen:

I enclose { ☐ \$3.50 for your "3-in-1" offer
☐ \$3.00 for Annual Membership

I enclose ☐ \$1.95 additional for the lifetime Rifleman Binder.

Send to:

NAME

STREET

CITY

STATE

A 3-in-1 Gift for Only \$3.50

N. R. A.

☐ New

☐ Renewal

Field & Stream

☐ New

☐ Renewal

Is this as a gift subscription?

Endorsed as a good, honest citizen of the U. S. (Not required if person named is now an N. R. A. member.)

ENDORSEE

ADDRESS

CITY

GIVE A BOOK



A Rifleman Went to War, McBride—Few, if any, World War veterans saw more front line action than the late Captain Herbert McBride, author of this new shooter's book "A Rifleman Went to War." He tells of his thrilling war-time experiences and gives an accurate account of what a skilled rifle shot can do on the battle field and in the trenches. The book contains many facts previously unpublished regarding trick sniping, range finding and counter rifle sniping. It is an interesting, true story of modern war as a real Yankee rifleman found it. Admittedly the outstanding shooter's book of the year. 398 pages. Price \$3.50.

English Pistols and Revolvers, George—For firearms collectors and those who are interested in the history and development of guns, here is a 256 page book, written in a most interesting fashion, which treats of all English hand firearms from the time of their first manufacture during the 17th century on through until the present day. Replete with interesting and authentic notes relative to Joe Manton, Durs Egg, Nock, Mortimer and other leading gunsmiths of the reigns of the Georges, as well as brief sketches of Elisha Collier, Col. Sam Colt and other Americans who stamped their ideas and influence upon the manufacturing practice and inventions of their times. 201 illustrations. Price \$4.00.

Military and Sporting Rifle Shooting, Crossman—A companion volume to "The Book of the Springfield," by the same author. Here is a book that tells you how to shoot. It contains no technical or mechanical data whatever. It pertains solely to the use of high powered rifles and how to shoot them. "Military and Sporting Rifle Shooting" teaches you to shoot under every condition and circumstance. It is a book, that, if read carefully, will surely mean added points to your score. 500 pages. 100 illustrations. Price \$4.50.

Textbook of Firearms Identification Investigation and Evidence, Hatcher—All firearms experts are unanimous in their endorsement of this splendid textbook. There is no other volume like it. The author, an outstanding Ordnance Officer was selected by the F. B. I. to instruct G-Men in the identification of firearms and evidence. This is the textbook used. It covers a highly technical subject in an interesting, easy to understand style. 750 pages. 300 illustrations. Price \$7.50.

Modern Gunsmithing, Baker—The ideal volume for the amateur gunsmith. And the only book available which treats this subject in a practical manner. You do not require an elaborate machine shop in order to carry out the ideas suggested. Modern Gunsmithing tells and illustrates how to do the hundred and one minor jobs, such as reducing trigger pulls, speeding up actions, etc. But if you want to remodel your military rifle, rebuild a shotgun or "doll up" your handgun, you will find special chapters containing step by step instructions for such major operations. Written by a practical shooter who has practiced amateur gunsmithing for years. 525 pages. 200 illustrations. Price \$4.50.

The Book of the Springfield, Crossman—A textbook devoted to all the details and uses of the most popular rifle and cartridge the world has known—the .30 Model 1906 Springfield. It contains full data about the many different military, commercial and private makers of rifles for this cartridge, together with the very latest information relative to their sights, both metallic and telescopic. The data on cartridges is exceptionally complete. Special illustrations show sections of bullets with full details of construction. A book no target shooter, hunter or student of ballistics can afford to pass up. 450 pages. 100 illustrations. Price \$4.00.

Modern Shotguns and Loads, Askins—America's outstanding shotgun expert has written this interesting, authentic volume. Actually two books within one cover. It contains in the first part all the technical and ballistic data on modern shotguns. Outstanding chapters are those showing killing energy of all the most popular loads at different ranges, and on all kinds of feathered game. Then, in part two the author gives you the benefit of his experience in hunting with the shotgun. This book will teach you how to become a good wing shot on all kinds of game; how to aim, lead, swing or snap, and how to use the second barrel. 436 pages. 100 illustrations. Price \$4.00.

Textbook of Pistols and Revolvers, Hatcher—Although strictly devoted to handguns, their manufacture, accuracy, types of sights, barrel life, etc., this book also contains valuable data on ballistics, ammunition technique and handgun shooting in general. It is written in an interesting and easy to understand style and contains 532 pages and 190 illustrations. Price \$4.25.

Manuals too—We also carry a complete line of popularly priced manuals, devoted to many of the subjects covered by these textbooks and selling at from \$1.50 to \$3.50 each. See our advertisement on page 2 for a description of additional books and other gift suggestions. Use the coupon below to order books or manuals.



National Rifle Association
816 Barr Building
Washington, D. C.

Gentlemen:

Please send by prepaid parcel post the books I have listed on this order form:

NAME _____

ADDRESS _____

CITY _____

STATE _____

LIST THE TITLES YOU WANT

Book

Price

Total amount enclosed

Every American's Birthright...

AN ABUNDANT GAME SUPPLY



Sportsmen like you can do much to make *every* autumn bountiful in its yield of game. To your wise observance of the rules of conservation is entrusted the future of the sport you love.

E. I. DUPONT DE NEMOURS & CO., INC.

Explosives Department

SPORTING POWDER DIVISION



WILMINGTON... DELAWARE

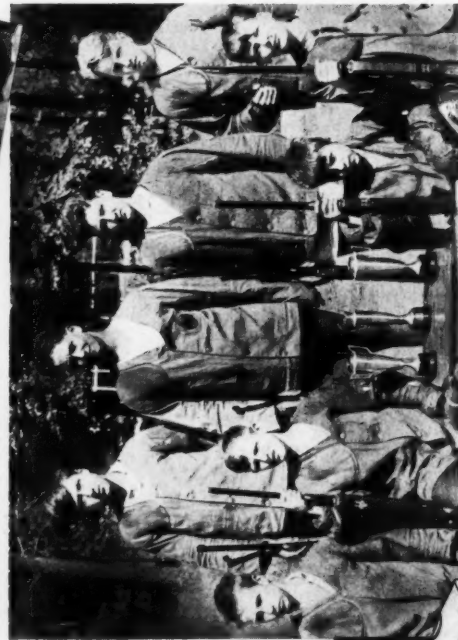
Member of the American Wildlife Institute

Xpert Has What It Takes To Win!



Camp Lincoln Dewar team. Left to right, standing: Milton Peterson, Bob Snyder. Kneeling: Bob Lamsar, John Campbell.

Camp Lake Hubert senior girls' team—titled for title of National Camp Champions. Left to right, standing: Molly Wilson, Margaret Stringer, Mary Cochran, Betty Jenkins. Kneeling: Jo Ann Spiva, Nancy Hauser, Alice Sell.



Camp Lincoln junior team—Junior National Champions. Left to right, standing: Frank Schleicher, Jr., Gene Fretichs, Robert Goldsmith, Dick McFayden. Kneeling: Dick Warner, Fred Bekins, Pete Peterson, Vernon Turnburke.

START your indoor season with the ammunition that has what it takes to win. More and more, rifle clubs are adopting XPERT since its introduction a year ago, because of its extreme accuracy. The use of XPERT by clubs and teams throughout the country is typical of its widespread acceptance.

Rifle teams of Camp Lincoln for boys and Camp Lake Hubert for girls, both of Lake Hubert, Minn., won first places in two divisions and placed second in two in the 1938 National Inter-Camp Championships shooting XPERT.

The Camp Lincoln junior team No. 1 defeated 221 teams to win the Junior Boys' national camp title with a score of 494. The No. 1 team in the senior division placed second in the Senior Boys' national camp championship, in a field of 149 entries.

The Camp Lake Hubert No. 1 senior girls'

team triumphed over 39 teams to win the national title in the Senior Girls' Division, score 496, tying a boys' team for the National Camp Championship for which duplicate awards were made. The No. 1 team in the junior girls' division was second in a field of 45 teams which competed for the Junior Girls' national camp championship.

At the Minnesota Arrowhead Registered Small Bore Matches, Virginia, Minn., July 23-24, the Camp Lincoln senior team topped a strong field in the Dewar Team Match—50 and 100 yards, iron sights—shooting SUPER-MATCH. Score: 1582.

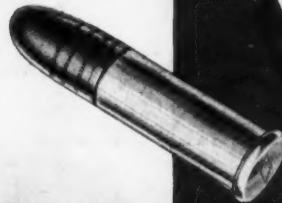
Western XPERT .22's were used exclusively by the teams of both camps in all 50-foot matches and for practice.

XPERT has what it takes to win. Write for the Western Ammunition Handbook containing full particulars of the entire line of Western World Champion Ammunition.

WESTERN CARTRIDGE COMPANY

Dept. L-25, East Alton, Illinois

Western
Xpert
FOR
ACCURACY
WITH
ECONOMY



ECONOMY

Camp Lincoln Junior team — Junior National Champions. Left to right, standing: Frank Schleichner, Jr., Gene Frerichs, Robert Goldsmith, Dick McFeyden. Kneeling: Dick Warner, Fred Bekins, Pete Peterson, Vernon Turnburke.

